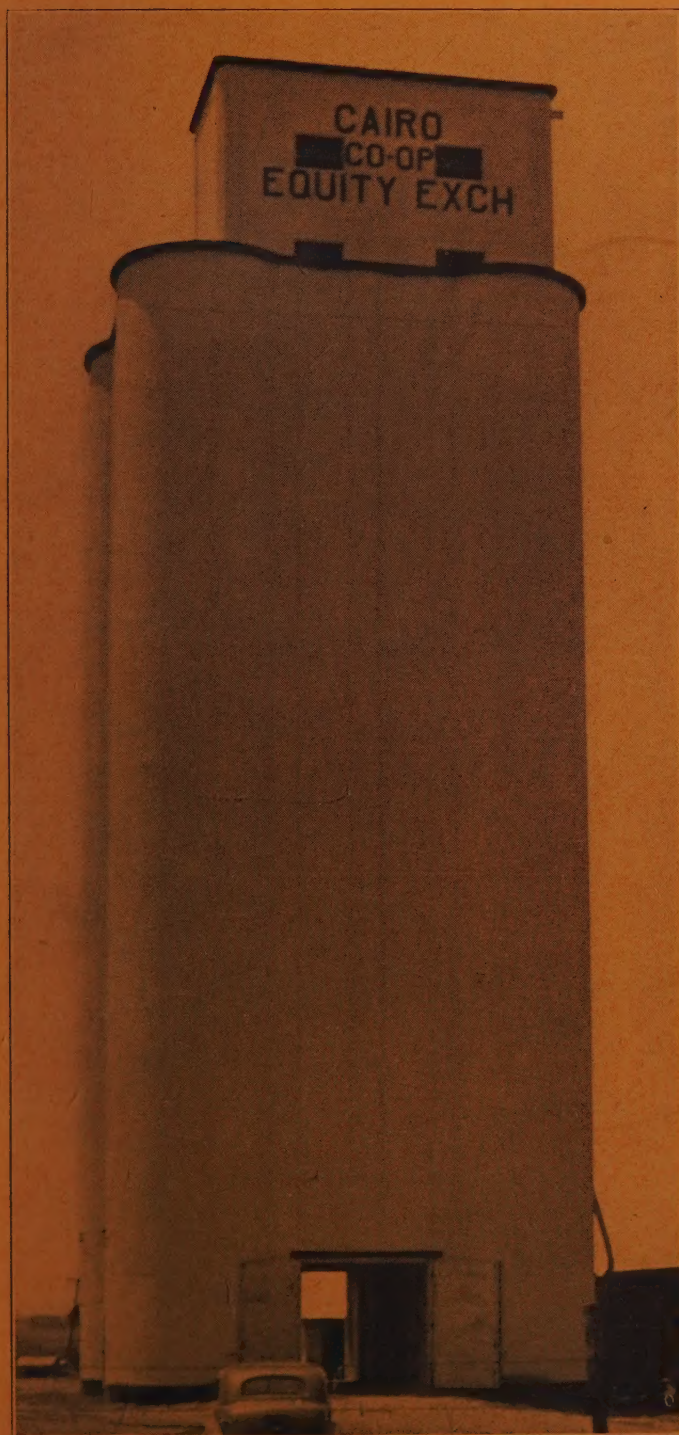


GRAIN & FEED JOURNALS CONSOLIDATED

A Merger of Grain Dealers Journal, American Elevator & Grain Trade, Grain World and Price Current-Grain Reporter



In This Number

- War Against the Fire Hazard
- Watch for Scale Fraud
- Government to Support Bean Prices
- Oklahoma Cooperatives Hear Plea for Farm Storage
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- New Wheats of the Future
- Modern Trends in Grain Improvement
- Air Oven Method of Moisture Testing
- Some Sad Effects of Feed Price Fixing
- Vitamin A Limitation Eased
- Riboflavin Concentrates
- Vitamin D Requirements

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(For description see Page 327)

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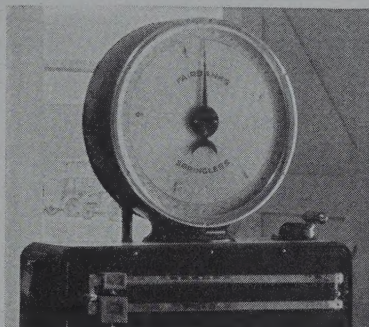
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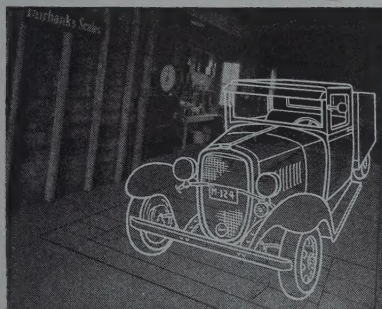
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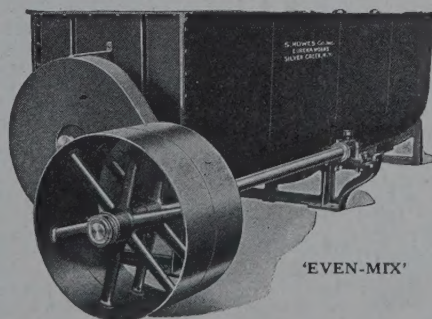
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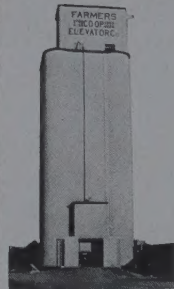
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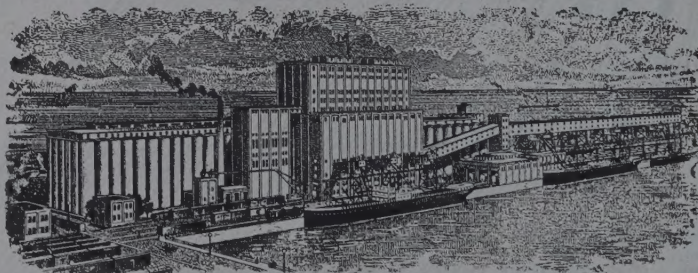
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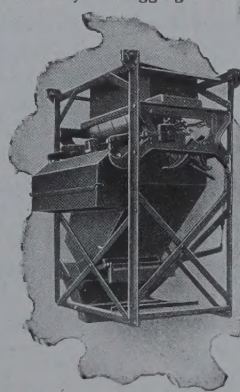
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SAMPLE ENVELOPES—SPEAR SAFETY—for mailing samples of grain, feed and seed. Made of heavy kraft paper, strong and durable; size 4½x7 inches, \$2.75 per hundred, or 500, \$12.00 plus postage. Seed size 3½x5¼ ins., per hundred \$2.00 plus postage. Grain & Feed Journals, 327 S. La Salle St., Chicago, Ill.

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steel grain tanks about 12,000 bu. capacity or bigger and bucket elevator 1200 bu. capacity per hour. Please give all details to National Malting Co., 9 Ann St., Paterson, New Jersey.

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FOR SALE—Motor Truck Scale, 20 ton. Never installed. Save \$200. Address 88H2, Grain & Feed Journals, Chicago, Ill.

SCALES WANTED

WANTED—10 ton scale (used), platform type. L. C. Johnson, Hudson, S. D.

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FOR SALE—3 Single Phase Motors, 5 H.P., 15 H.P. and 35 H.P. with switches. The Perry Elevator, 126 1st St., Perry, Mich.

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Large stock of motors and generators, A.C. and D.C., new and rebuilt, at attractive prices. Special bargains in hammermill motors, 25 to 100 H.P., 1200 to 3600 R.P.M. Write for stock list and prices. Expert repair service. V. M. NUSSBAUM & CO., Fort Wayne, Indiana.

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Grain Contracts with Farmers

Form 10 D. C. is recognized as the best for contracting grain and seed from farmers, and is in extensive use by grain dealers. Do not take chances with verbal contracts. They lead to misunderstandings, differences and disputes, as well as loss of profits and customers. Contract certifies that farmer:

"has sold.....bushels of.....at..... cents per bushel, to grade No....., to be delivered at.....on or before....." It also certifies that, "if inferior grain is delivered, the market difference at which such grain is selling on day of delivery shall be deducted. Any extension of time at buyer's option."

Originals are printed on bond paper, machine perforated so they may be easily removed; duplicates are of manila. All have spaces ruled on the back for recording each load delivered on the contract. Check bound, size 5½x8½ inches, 100 sets numbered in duplicate and supplied with 4 sheets of carbon paper. Order Form 10 DC Improved. Price \$1.10, f. o. b. Chicago. Wt. 1 lb.

Triplicating book is same as 10 DC and contains 100 additional copies of the contract printed on strong tissue and 4 sheets of dual faced carbon. Order Form 10 TC. Price \$1.35, f. o. b. Chicago. Weight, 21 ozs.

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Capacity of Elevator

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HAMMER MILL with 25-h.p. motor and all attachments. Priced to sell. Write 88B11, Grain & Feed Journals, Chicago, Ill.

FEED MIXER for sale, has motor, and a late machine. Need space. Will sacrifice. Write 88B12, Grain & Feed Journals, Chicago, Ill.

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FOR SALE—One Robinson 24" Attrition Mill with two 20 H.P. motors directed connected, starter, extra wire and new buhrs; first class condition, ready to go. Geo. Todd Construction Co., Ames, Iowa.

FOR SALE—5 h.p., new, totally enclosed 1800 RPM motor, 60 cycle, 3 phase, 220 volt, with base; One 1-ton vertical feed mixer, used, with motor and drive. Address 88G10, Grain & Feed Journals, Chicago, Ill.

FOR SALE

One 2S-16 Gruendler, 50-hp. motor; one Miracle Ace direct connected to 60 hp.; one double head 30" Robinson Attrition mill, direct connected to two 30 hp. motors; one Monarch friction clutch flour packer; two No. 3 Barnard & Leas plan-sifters; one Barnard & Leas heavy duty friction clutch bran packer; one Munson one ton horizontal mixer, complete with motor. D. E. Hughes Co., Hopkins, Mich.

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24" Bauer ball bearing motor driven attrition mill with 20 HP. Wagner motors, complete with starter, excellent condition, price \$275.00. Just one of many items available for prompt shipment including hundreds of REBUILT-GUARANTEED electric motors, all makes, types and sizes, for mill and elevator service, at money saving prices. Write us on your requirements. ROCKFORD ELECTRIC EQUIPMENT CO., 728 South Wynan St., Rockford, Illinois.

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- NEW**—2 No. 1 Type W Swing Hammer Feed Grinders, belt-drive, or motor-drive—capacity; screenings 400 to 600 lbs. per hour; shelled corn 1000 lbs. per hour.
- USED**—30-12 GRUENDLER all steel ball bearing Feed Grinder, with or without fan, 25 to 30-HP.
- USED**—50-16 GRUENDLER "SUPREME" steel plate, ball bearing Feed Grinder for 50 to 75-HP. Slow speed 1800-RPM.
- USED**—No. 3 GRUENDLER Whirl Beater for 40 to 50-HP.
- USED**—Type A ZENITH GRUENDLER Feed Grinder for 30-HP.
- USED**—SCHUTTE Type F, Model L, Feed Grinder for 50 to 60-HP.
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- USED**—No. 3 GRUENDLER Whirl Beater Feed Grinder with 50-HP. motor.
- USED**—PAPEC Grinder with 50-HP. motor.
- USED**—No. 4 GRUENDLER 1500 lbs. per hour Batch Mixer, belt driven.
- USED**—GRUENDLER all stainless steel Food Grinder with 2-HP. motor.
- ONE**—(1) 160-HP. Fairbanks-Morse 3 phase, 60 cycle, 440 volt, 1800-RPM., slip ring motor with starter.

State fully your requirements.

GRUENDLER CRUSHER & PULVERIZER CO.
2915-17 North Market Street, St. Louis, Missouri.

MACHINES FOR SALE

CORN CUTTER & Grader—has motor—used very little. 88B9, Grain & Feed Jnl's., Chicago.

FOR SALE—One Howe Weightograph for truck scale; top condition. Bargain, Cissna Park Cooperative Grain & Coal Co., Cissna Park, Ill.

FOR SALE—No. 4 Duplex Buhr Mill, 2 bu. Automatic Dump Scale, Hammer Mills, Mixers, cleaners and other machines. T. A. McWilliams, 1460 S. Second St., Louisville, Ky.

FOR SALE

- 1—Union Iron Works No. 2½ corn sheller.
 - 1—Standard Seed Separator (with seven sieves).
 - 1—No. 15 Union Iron Works corn sheller.
 - 1—No. 3½"x4" Elevator boots, heads, legs, pulleys, and cotton belting with Salem cups.
 - 1—Single Shovel Clark Power Shovel.
 - 1—Ohio Hay Baler, used one season, mounted on 1937 Ford Truck with V Belt Drive, 20 H. Hercules, Motor 17 by 22.
- Line shafting and hangers.
Meggett's Elevator, 420 W. Main St., Clyde, Ohio.

MACHINES FOR SALE

FOR SALE—One ton vertical feed mixer, first class condition. Geo. Todd, Ames, Ia.

STOP! READ! THINK! One advertiser writes, "Your service brought me 24 replies." We can do the same for you. Don't wait, write now.

MACHINES WANTED

WANTED used Boss Airblast Carloader, size N6. Will sell or trade smaller size loader. J. E. Pumphrey, Maunie, Ill.

BARGAIN IF TAKEN AT ONCE—Some one is always looking for an elevator at a good grain point and reads these ads just like you're doing now, so if you wish to dispose of your present property, enlarge your present interests, or embark in the grain business, USE these columns to your best advantage just as others are doing. WE WILL assist you in the composition of copy free. We are in business to be of service to YOU. There is no wrong time to put an ad in the columns of the Journal. TRY IT.

The Last Word in Clark's Direct Reduction Grain Tables

is a combination of our popular 7-card set, Form 3275 Spiral and our new Truck Loads to Bushels, Form 23,090 Spiral which reduce by 10 pound breaks any weight of grain from 600 to 23,090 pounds to bushels of 32, 48, 56, 60, 70 and 75 lbs.

Carefully printed from large clear type, using jet black ink, showing the bushels directly beside the weight of grain reduced and distinctly separated by rules and spaces so as to prevent errors in reading. The most practical, the most helpful grain reduction tables ever published. Their use will return their cost every day of the busy season in labor and time saved and errors prevented.

The spiral binding keeps the cards flat, and in regular sequence, and prevents the exposure of more than one grain at a time so it is easy to keep wide open the tables for the grain being received.

Both sets of tables are printed on heavy six ply tough check of durable quality, 11x13 inches with marginal index. Shipping weight, 3 lbs. You can get both sets described below for \$2.60, plus postage.

Direct Reduction Grain Tables											
32 lbs. per bushel—OATS											
600	610	620	630	640	650	660	670	680	690	700	710
620	630	640	650	660	670	680	690	700	710	720	730
640	650	660	670	680	690	700	710	720	730	740	750
660	670	680	690	700	710	720	730	740	750	760	770
680	690	700	710	720	730	740	750	760	770	780	790
700	710	720	730	740	750	760	770	780	790	800	810
720	730	740	750	760	770	780	790	800	810	820	830
740	750	760	770	780	790	800	810	820	830	840	850
760	770	780	790	800	810	820	830	840	850	860	870
780	790	800	810	820	830	840	850	860	870	880	890
800	810	820	830	840	850	860	870	880	890	900	910
820	830	840	850	860	870	880	890	900	910	920	930
840	850	860	870	880	890	900	910	920	930	940	950
860	870	880	890	900	910	920	930	940	950	960	970
880	890	900	910	920	930	940	950	960	970	980	990
900	910	920	930	940	950	960	970	980	990	1000	

Form 3275 Spiral includes tables giving direct reductions of any weight of grain, from 600 to 12,090 lbs. to bushels of 32, 48, 56, 60, 70 and 75 lbs. by 10 pound breaks. This set of Clark's Direct Reduction Grain Tables weighs 2 lbs. Price \$1.70, plus postage. Order 3275 Spiral.

Truck Loads to Bushels. Just what you have been wanting. Now let the big trucks come, so you can determine with a glance the number of bushels and pounds over in each load truck delivers. These six Clark's Direct Reduction Grain Tables continue the reductions made by Form 3275 Spiral, and have a range from 12,100 to 23,090 pounds. Reductions are by 10 pound breaks into bushels of 32, 48, 56, 60, 70 and 75 lbs. Shipping weight, 2 lbs. Price, only \$1.70 plus postage. Order No. 23,090 Spiral.

A combination of Form 23,090 Spiral, with Form 3275 Spiral gives complete reduction of all grains specified in a range from 600 to 23,090 pounds. Both sets of tables now for only \$2.85, plus postage. Shipping weight 3 lbs.

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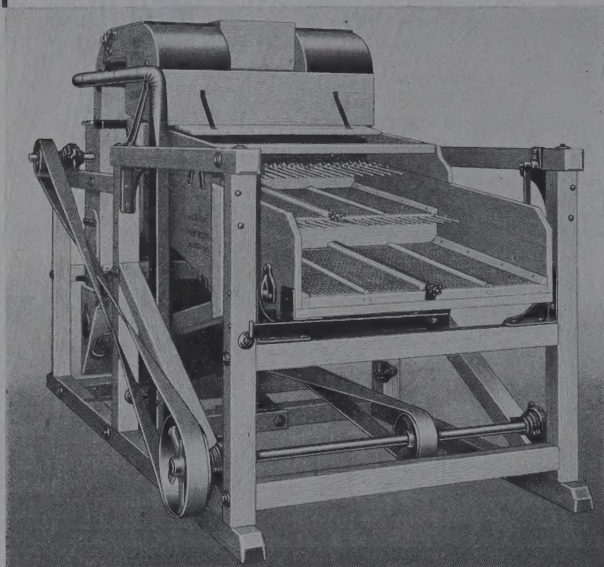
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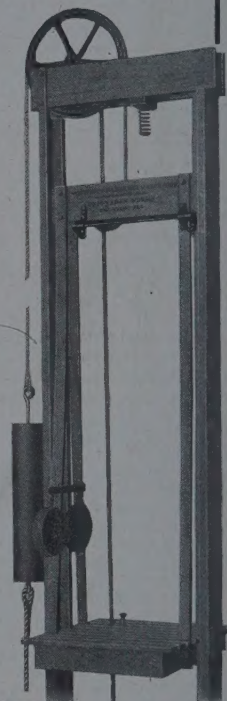
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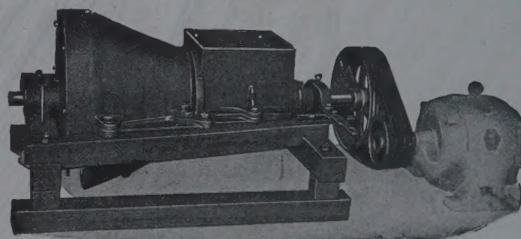
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Charles S. Clark, Manager

A merger of
GRAIN DEALERS JOURNAL
Established 1898

**AMERICAN ELEVATOR &
GRAIN TRADE**
Established 1882

THE GRAIN WORLD
Established 1923

PRICE CURRENT - GRAIN REPORTER
Established 1844

Published on the second and fourth Wednesdays of each month in the interests of better business methods for progressive wholesale dealers in grain, feed and field seeds. It is the champion of improved mechanical equipment for facilitating and expediting the handling, grinding and improving of grain, feeds and seeds.

SUBSCRIPTION RATES to United States, Canada and countries within the 8th Postal Zone, semi-monthly, one year, cash with order, \$2.00; single copy current issue, 25c.

To Foreign Countries, prepaid, one year, \$3.00.

THE ADVERTISING value of the Grain & Feed Journals Consolidated as a medium for reaching progressive grain, feed and field seed dealers and elevator operators is unquestioned.

Advertisements of meritorious grain elevator and feed grinding machinery and of responsible firms who seek to serve grain, feed and field seed dealers are solicited. We will not knowingly permit our pages to be used by irresponsible firms for advertising a fake or a swindle.

LETTERS on subjects of interest to those engaged in the grain, feed and field seed trades, news items, reports on crops, grain movements, new grain firms, new grain elevators, contemplated improvements, grain receipts, shipments, and cars leaking grain in transit, are always welcome. Let us hear from you.

QUERIES for grain trade information not found in the Journal are invited. The service is free.

CHICAGO, ILL., APRIL 22, 1942

DISTILLERS' production of dried grains under the stimulus of demand for munitions alcohol has been stepped up to the point where this excellent feed cuts a figure in the markets.

IT IS a tribute to the substantial character of the feed business that the big motor companies are aiding the public garage operators and automobile sales agencies to convert their properties into retail feed stores.

WHEN TEMPTED to use that dependable warm weather insecticide known as bisulphide of carbon, because it is now more easily obtainable than chlorine products, do not forget that keeping or using the explosive bisulphide voids your insurance policy.

NO DOUBT every farm contains tons of scrap metal which farmers never expect to use and would be glad to sell if country grain buyers persistently appealed to them to bring it in, and help the iron-mongers to salvage some of the iron and steel needed to win the war.

ALL C.C.C. wheat loans will mature the last of this month and if the government then starts to dump even a small part of its enormous stock of wheat on the distillers, feeders and millers, it may make room for some of the 1942 crop, but it will also depress the market price.

THE SECRETARY'S ever-normal granary will burst if farmers follow the advice of Purdue to use 200 to 250 pounds of fertilizer per acre of corn instead of the recommended 65 pounds. According to the University a dollar spent for fertilizer will return \$2.50 profit.

MANY an elevator has been saved by the prompt use of conveniently located fire fighting equipment, as was the office of Greene & Son at Clarksdale, Ia., one Sunday morning recently when Mr. Greene got behind with his office work, but fortunately looked about a bit before going home for dinner.

WITH corn planting time approaching, the country elevator man handling seed corn should redouble his efforts to persuade farmers to plant the white variety. If any farmer patron does not know that he can get 5 to 8 cents per bushel more for the white than for the yellow corn, tell him about it. The markets never seem to get enough white corn.

SO MANY fires are traceable direct to overheated motors it is all important that more vigilant inspection be given every motor and that a more determined effort be made by every elevator workman to keep motors clean so as to prevent overheating. Many fires of recent date have been traceable direct to the motors so that it is becoming all important that every motor be thoroughly cleaned and kept lubricated.

THE HEARINGS to be held by the Department of Agriculture on the proposed adoption of the air oven as the means of testing soybeans for the percentage of moisture should do much to bring out the advantage of this method over that of boiling grain in oil as used at present for soybeans and other grains. Altho the description of the method published elsewhere is lengthy the procedure is simple, as laid down officially.

PENNSYLVANIA'S Representative Snyder is making an honorable effort to develop sound economy in government control over transportation with his introduction in the House of a bill to require commercial users of inland waterways to pay a toll to recompense the government for the expense of making these rivers navigable. Past action by federal law making bodies, however, promises little success for this effort. Legislators have no reputation for tying down the lids on pork barrels, or for relieving the pocket-books of the taxpayers.

EARLY RISING grain dealers will be glad to learn that the members of the Northeastern Indiana Hay & Grain Dealers Ass'n have resolved to open their places of business at 7:30 A. M. and close at 5:30 P. M. Early closing, especially on Saturday, has been discussed by different sections of the country trade, so, no doubt, this movement for early closing of country buying offices will meet with the support of grain buyers in other sections.

CLOSING of the markets to future trading in grain seems less likely now than in the first world war. Instead of forbidding civilian activities the authorities encourage citizens to pursue their normal activities as far as the materials are obtainable after war needs have first been satisfied. Closing the future trading exchanges is unnecessary as a price control measure, since sufficient control is exercised by the price supporting loans and the ceilings that were unknown in the first world war.

A FEED mill is no place for a child or a person wearing skirts. Moving machinery presents too many hazards. A young miss who is old enough to know that she should stay away from moving machinery recently entered a Mound City, Missouri, feed mill and thoughtlessly dropped her purse containing about \$30, and the feed mill ground it into small bits just as though the mixture was regular feed. So many lives and limbs have been given similar treatment by the moving machinery of feed mills that it is high time visitors were barred.

ODT'S VOLUNTARY PLAN whereby 1,500,000 farm trucks would be employed in a tremendous cooperative transportation effort to move farm commodities, as reported in this number, holds possible shifts in the movement of grain. Generally, the country grain dealer should benefit from this rubber and truck conservation plan. The tendency for grain will be to move to the nearest elevator. Farmers will be less likely to drive their trucks 10 miles farther to sell to the distant dealer who is willing to bid 1/2c per bu. more for grain from outside his normal territory.

FOOD is essential in prosecuting the war, not only on the fighting front, but for the civilians who are employed in factories producing war material. We have had such an abundance of grain for years past the war planners may neglect this essential and fail to allow grain growers and grain distributors the priorities that will permit them to produce and to store and handle the crops. With man power being drafted from the farms, the present condition of plenty will change for the worse, so every bushel of grain must be saved by providing for repair and maintenance of existing grain elevators.

RESOLUTIONS adopted by grain trade associations would more clearly and more forcibly reflect the advanced thought of the progressive members, if the resolution committees were appointed a month in advance and asked to send their recommendations to the chairman immediately. Resolutions prepared in the turmoil and confusion of a crowded convention seldom tell the convictions of well posted leaders.

THE FEWER varieties of any grain or beans sown in the community the better the grade granted to the crops of that community, and the better a grade obtained on shipments the better the returns to the shipper, and the better the price the shippers will be able to pay growers for the pure variety offered by the community. Grain shippers know very well that processors cannot get maximum results from mixed grains or beans, so they accept the discount prevailing in the central market. If all country shippers would discount mixed grains and beans in the same proportion which they suffer, growers in any community would be more interested in planting fewer varieties.

ALL THIS TALK about the need for building up storage on farms because country and terminal elevators are well filled and have little room to carry the new crops is apt to be taken seriously by a lot of farmers. We need more space alright, but building space on farms can lead to many future complications. Grain dealers who anticipate these complications, and prepare for them by helping their farmer friends in the present emergency, will find themselves in the best position for continued business when the emergency passes. Find out what types of farm storage are most economical to build, and most suitable for safely storing the kind of grain the farmer produces. Help settle the storage problem for 1942.

THE ALERT INDIANA grain dealers and Purdue University overlook few possibilities for better conditions. Local feed meetings have been centering discussion on the possibility of sabotage of the U. S.'s livestock feeding program thru impregnation of feeds in storage with disease germs. The Japs are known to have attempted to spread human disease in China by dropping small bags of rice that had been impregnated with bubonic plague germs and by releasing rats carrying this disease. But authorities have found that Indiana dealers in many cases were already taking precautions. Sanitation is just natural with a great number of grain dealers. We know one who will not allow feed ingredients to touch the floor in his mill before being mixed into feed for fear they may become contaminated from the footsteps of some careless farmer who may unconsciously carry coccidiosis germs on the soles of his boots.

Requisitioning Storage Facilities

Conscription of grain storage space to handle the wheat, corn and other grains of farmers who cooperate with the A. A. A.'s farm program, is a possibility understood to be talked about in government circles should the grain trade fail in its task of handling new crops efficiently, even tho the problem itself developed thru the A. A. A.'s ever-normal granary plan.

Here we see fearful hints of another infiltration move on the part of government agencies to inject themselves deeper and deeper into private business, even to the extent of creating problems for farmers, which they may claim later they alone can solve.

With its customary resourcefulness, the grain trade will bend every effort toward mastering the present grain storage dilemma. It will succeed some way, in spite of obstacles. But we may rest assured that if the magnitude of the problem forces occasional slips, the government's austere bodies, with their innumerable miles of red tape, and inexperience in handling grain, would bog down disgracefully under the same conditions.

Another Dust Explosion

Altho the number of grain elevators and the volume of grain stored in the grain elevators of the U. S. A. has greatly increased during recent years, the number of grain dust explosions has been materially reduced.

The destructive grain dust explosion in a Lubbock, Texas, elevator last week did not spread to all parts of the reinforced concrete plant, altho it was most powerful in the lower floor and basement of the work house, showing conclusively that the operator made an earnest effort to keep the house clean. If all parts of the plant had been filled with fine powdered dust then more of the plant would surely have been visited by the explosion.

This plant was visited by an explosion in November, 1934, and then the plant was clean enough so that the explosion was confined to a small section of the plant, in fact the loss was even smaller than the loss caused by the explosion last week.

The very fact that the dust explosion was of sufficient force to wreck the outside walls of the work house proved conclusively that it was strong enough to dislodge any fine dust which may have previously accumulated on the ledges or walls.

The history of grain dust explosions generally prove conclusively that the second and third explosions were the most powerful and the most destructive. While the property loss from these explosions has been enormous the loss of life has been many times greater, and, doubtless, workers everywhere profit

from these explosions and exercise greater vigilance in keeping the plant, employing their services, clean and free from the dust explosion hazard because they must suffer the greatest loss from any dust explosion which occurs.

Good housekeeping not only helps to reduce the number and the losses by fires, but also helps to reduce the extent of grain dust explosions.

Food Will Win the War

No loyal American is willing to eat when American soldiers go hungry. The Department of Agriculture has been urging farmers to increase their production of foodstuffs, and the farmers are responding most willingly. The next thing is to gather the crops promptly and store them so as to protect them from the elements, the insects and deterioration.

The grain dealers who strive to market the country's crops efficiently and to preserve all foodstuffs provided for 100,000,000 bushels additional storage facilities last year and, doubtless, would provide much more new storage for the 1942 crop, if the Lords of Priorities would make it clear that they stand ready to support the recommendations of the Department of Agriculture, and do everything in their power to encourage the building of modern facilities for storing and handling the increased crops demanded by the Department.

Much of the 1941 crop of soybeans was sacrificed to continued rains at harvest time and the lack of proper drying facilities to prevent heating and deterioration.

No doubt, those in control of priorities are perfectly willing that the farmers of the land shall produce more grain, beans and seeds, but they fail to comprehend that modern facilities for storing, handling and improving the new crop of grain must be provided if the products are to be saved for human consumption.

Many grain merchants have planned for the construction of new elevators providing for modern handling and storage facilities, but they hesitate to proceed so long as priority permits for immediate construction are lacking.

The recent selection of a Defense Agriculture Relations Committee in the hope of expediting the issuance of special priority permits should give real encouragement to grain merchants who stand ready to provide additional storage facilities.

The February 16 report of the Department of Agriculture showed that fully 75 per cent of the country's grain storage facilities was occupied, and not much reduction has been effected since that date, excepting in the matter of corn storage.

The new crops will soon start to market so the construction of additional storage and handling facilities must be

expedited if it is to be of any real help in saving the 1942 crops.

We feel certain that when those issuing priorities come to a full realization of the country's need for additional elevator facilities they will give every encouragement to the prospective improvers.

Handling Hot Feed Fires

The obvious thing to do is sometimes just the wrong thing to do. To throw water on some types of incendiary bombs only makes the fire worse; and so cutting a hole in the bottom of the bin to rake out burning feed or grain is another blunder.

If the feed has become ignited first call the fire department and then while waiting for these reinforcements go to the top of the bin to remove the feed that has not yet ignited.

Keep the bottom of the bin closed to keep out the air that would fan the blaze to a white heat and destroy the entire plant.

By cutting a series of holes in the side of the bin from the top down the feed can be removed more easily. It is cheaper to repair these holes than to rebuild the elevator that burned after an unwise attempt to avoid marring the structure by drawing off the feed at the bottom.

With one line of hose to the top and another to the bottom of the bin a nozzle can be opened to flood hot spots uncovered. It is better to spoil some feed with water than to have the building burn. Do not take it for granted that there is no fire in the heating bin, but remove all the feed.

St. Louis Concerned with Storage

Mr. Wells told a meeting of 300 grain dealers, millers and railroad men in the Hotel Statler at St. Louis, Mo., Apr. 6, that most of the 1942 grain surplus must be stored on farms and in country elevators because there are no other places to which it can be moved.

Earl Sullivan, general superintendent of the Missouri Pacific Lines, said at this meeting: "We are in excellent position to take care of that part of the crop that must be moved to market." J. J. Hayden, district manager of the Ass'n of American Railroads, followed him with an immediate warning: "Box cars must be unloaded when they reach a destination because we will need them for handling war goods."

William McArthur said C.C.C. made loans on 1,126,000,000 bus. of grain last year and expects this volume to be exceeded this year. "Last year," he said, "we moved a lot of grain to the Atlantic seaboard. But that space is no longer available, because there was no export outlet. Plenty of buyers want grain, but there are no boats to carry it.

"Five or six distilleries are conducting experiments with wheat that look encouraging. By May 1 we hope they will be in full production and taking large quantities. In by-products, distilleries get most out of the wheat."

Julius Mayer, St. Louis' chairman of the Com'te to Acquire and Disseminate Information to Facilitate Handling and Storage of

Grain, said the surplus "must be kept on farms or in country elevators."

A. H. Ricker, WPB's Priorities Field Service representative, said that lumber and nails are available for construction of new storage facilities on farms or at country elevators, but E. H. Karp, of Farm Credit Administration, warned that steel, copper, wire, rubber belting and similar strategic materials, are not available in large amounts such as are required for normal elevator construction.

Warehouseman Not Liable Under Landlord's Lien

Leamon Henderson, tenant, owed Guinn Investment Co., landlord, one-third of the wheat grown, and delivered to the Farmers Elevator Co., Purdy, Mo., 389:13 bus. wheat, receiving storage tickets therefor made out to him. Henderson informed John Miller, agent of the elevator company, that landlord owed him for expenses all the wheat was worth except \$4.42.

Henderson offered \$4.42 to W. W. Locke, manager of the investment company but it was refused and more claimed. Locke demanded of the elevator company payment of the value of the wheat, \$194.56, and on refusal brought suit against the elevator company on the theory that the elevator company had bought the grain and became liable under the Missouri landlord's lien law, Rev. Stat. 1939, sec. 2986. Moreover, the investment company alleged Henderson had deposited the wheat in the name of the Guinn Investment Co.

A jury in the circuit court of Barry County found that the wheat had been deposited by Henderson in his own name and gave judgment in favor of the elevator company.

On appeal by the investment company, the Springfield Court of Appeals held that a buyer was liable if he bought rent grain, he was not liable where the grain was only deposited, and affirmed the decision in favor of the elevator company.—156 S. W. Rep. (2d) 62.

Jurisdiction Over False Labeling

The U. S. Circuit Court of Appeals has held in the case of the government v. Research Laboratories, Inc., that goods are subject to condemnation when accompanied by reading matter that is false and misleading.

The opinion states " * * * we hold that the circulars accompanied the packages and constituted their labeling within the meaning of the act (Federal Food, Drug and Cosmetic Act); that since the circulars were false and misleading, the packages were misbranded within the meaning of the act; that since the circulars accompanied the packages in interstate commerce, the packages were misbranded while in interstate commerce within the meaning of the act; and that, therefore, the packages—and, of course, their contents—are subject to condemnation."

It was held that it was immaterial whether the packages and circulars traveled in the same crate, carton, or other container or on the same train, truck, or other vehicles during the interstate journeys. The packages and the circulars had a common origin and a common destination and arrived at their destination simultaneously.

The court said " * * * the contention assumes that printed matter (such as a circular) cannot constitute both advertising and labeling. The assumption is unwarranted. Most, if not all, labeling is advertising. The term 'labeling' is defined in the Act as including all printed matter accompanying any article. Congress did not, and we cannot, exclude from the definition printed matter which constitutes advertising."

"The rule of strict construction invoked by appellee has little or no application to statutes designed, as the Federal Food, Drug and Cosmetic Act is designed, to prevent injury to the public health * * *"

Recent Developments in Priorities

Jos. M. Tucker, head priority specialist, branch of industry operations, War Production Board, Washington, spoke at Chicago April 6, at a special meeting called by the Chicago Ass'n of Commerce at the suggestion of the W.P.B.

Mr. Tucker said priority ratings are still being used as a general pattern, with limitation on production.

The most trouble is caused by applicants filing out PD-1A and neglecting to make a separate application for each product and each class.

Manufacturers authorized to make for example 2,385 units are now privileged to make different units as long as they do not exceed the total number.

Manufacturers of portable elevators are allowed to make 74 per cent of their 1940 production.

Watch for Scale Fraud

One R. P. Hannahan, who may have other aliases, recently called on the Snelson Seed Co., Jacksonville, Fla., collected some money, gave a fictitious address and skipped.

This crook represented himself to be connected with the Richardson Scale Co., and apparently is operating in Florida or the Southern states at this time. He inspires confidence by showing a knowledge of various types of platform and automatic scales and talking about servicing scales and handling second-hand scales. He will mention a number of companies in the seed business in Florida, and claims as one of his largest customers the U. S. Sugar Corp. at Clewiston, Fla.

The Richardson Scale Co. does not know this man and never heard of him before. The seed trade and grain trades are warned not to give an advance or deposit on any order, and if such request is made send the check direct to the Richardson Co. by mail, taking a description of the man and his car license number.

The Richardson Co. now is, and for many years has been, represented in the South by E. C. Mott of Atlanta, Ga., who is rather well known.

The National Safety Congress will meet Oct. 5 to 9 at the Stevens Hotel, Chicago.

Soybean Inspections Increase

Soybean inspections increased to the equivalent of 3,112 cars in March compared with 2,286 in February and 3,786 cars in March 1941. The March inspections brought the season's total to 36,512 cars of which all but 711 classed as Yellow. Slightly over 300 cars classed as Mixed and about 350 cars as Black.

A further improvement in the quality of soybeans was indicated by the March inspections since 84 percent fell into No. 3 and higher grades and only 16 percent graded No. 4 and Sample Grade. In February 79 percent graded No. 3 or better and 21 percent No. 4 and Sample Grade. In January only 61 percent graded better than No. 4. In March 1941, 91 percent graded No. 3 or better and only 9 percent No. 4 and Sample Grade.

The inspections of soybeans in March included the equivalent of 10 cars inspected as cargo lots, and truck receipts equivalent to about 24 cars. The grading of the soybeans receipts during March 1942, follows:

Class	Grade					Mar. 1942	Oct. 1 to Mar. 31
	No. 1	No. 2	No. 3	No. 4	Sam.		
Yellow	20	820	1,714	375	126	3,055	35,801
Green	..	..	..	1	..	1	11
Brown	..	..	..	1	..	1	43
Black	..	7	9	7	..	23	348
Mixed	..	6	18	2	4	30	309
Cars	20	833	1,742	386	131	3,112	...
Oct. 1 to Mar. 31	2,644	9,302	17,988	5,081	1,497	...	36,512

Asked—Answered

[Readers desiring trade information should send query for free publication here. The experience of brother dealers is most helpful. Replies to queries are solicited.]

How to Prolong the Life of Cables?

Grain & Feed Journals: We understand some large grain elevator operators use car-puller cables ten to fifteen years continuously. Please tell how they do it. We have tried giving our cables frequent baths in heavy oil, but still they break.—I. B. M.

Cost of Handling Grain

Grain & Feed Journals: On several occasions you have published articles concerning the cost of handling grain in country elevators. In what issues can we find these articles?—Louis J. Colehower, Wenona, Ill.

Ans.: In the Journal Mar. 27, 1940, page 251, is a report by Professor L. J. Norton of the University of Illinois, analyzing the costs of 43 Illinois elevators.

On pages 295 and 296 of Oct. 8, 1941, number, Wm. Olson & Co., certified public accountants, analyze separately for wheat, corn, oats and beans the costs of elevators in the northern half of Illinois.

Moisture Content of Soybeans for Safe Storage?

Grain and Feed Journals: I have noticed, in reading your magazine from time to time, that you maintain a department of varied information. Soya beans containing a high moisture content, if stored in bulk go out of condition quite rapidly. I would appreciate it, if you have any data, as to what is the maximum moisture content that soya beans may contain in order to be stored safely during the entire year.—Q. C. Moffat, grain inspector, Board of Grain Commissioners for Canada, Chatham, Ont.

Ans.: In January and February, 1933, soybean seed from the 1932 crop of five varieties commonly grown in Illinois and eight varieties commonly grown in North Carolina, were placed in storage by the Division of Seed Investigations at Urbana, Ill.; Montgomery, Ala.; Washington, D. C. and in the tidewater region of North Carolina.

Two series of the 13 varieties were stored at Washington. One was stored with normal moisture. The other was dried to an average moisture of 7.1 per cent. The two were stored under identical conditions. Moisture content became the same in approximately one year. Seed that was dried has consistently maintained a higher live seed percentage.

A parallel experiment was started to determine the longevity of soybeans under controlled conditions of temperature and moisture. In January, 1934, seed of Ootootan and Mammoth Yellow, containing approximately 14 per cent moisture, was obtained from North Carolina. By drying and by adding water, five degrees of moisture were obtained approximately 6, 9, 14, 16 and 18 per cent. The seeds were sealed in jars and placed under five temperature conditions approximately 14, 36, 50, 68 and 86 degrees, Fahrenheit.

When stored at 86 degrees, seed with 18 per cent moisture was dead or practically worthless in six weeks, that with 16 per cent moisture was dead in three months, that with 14 per cent moisture was weakened in four months and dead in five. The seed with 9 per cent moisture after 16 months, began to weaken.

When stored at 68 degrees, the seed with 16 and 18 per cent moisture was dead in less than a year, and that 14 per cent moisture had fallen to 30 per cent germination or below in 16 months. The two lower moisture groups had not yet shown evidence of loss from storage.

According to Frederick A. Wand, soybean expert of Chicago, the beans cannot be stored safely in quantity when the moisture content exceeds 13½ per cent. A 13% content is safer.

A bin holding 5,000 bus. of beans contains 7,500 gallons of oil subject to oxidation. A few bushels of damp beans becoming rancid can spread this condition rapidly, even in a mass of beans of low moisture content, that without this focus of infection would remain in good condition.

When soybeans are allowed to heat in storage, the oil breaks down into fatty acids and glycer-

ine. Such beans, when processed yield a low oil return per bushel. The oil is of a poor quality and must be refined in order to be of much commercial value. There is a loss in refining. The soybean oil obtained from such beans is dark in color and cannot be used in manufacturing special products. Judging from past experience, such meal would have to be sold at a discount even used as livestock feed.

The moisture content at time of harvest is governed by the weather, wet or dry.

Illinois Convention Program

An all-out invitation to the annual convention of the Illinois Grain Dealers Ass'n, which will be held at the Pere Marquette Hotel, in Peoria, May 4-5, has been extended. Sec'y W. E. Culbertson, Delavan, says: "Everybody in the grain trade is welcome, whether they are affiliated with our organization or not."

"We are now facing some very serious problems and these will be considered. We are to be favored with addresses by Mr. Sam L. Rice, president of the Grain & Feed Dealers National Ass'n; Mr. Clarence Henry, director of Education, Board of Trade of the City of Chicago; and Mr. R. D. MacDaniel, of the Grain Dealers National Mutual Fire Insurance Company. The War Production Board will have Mr. Mason W. Haigh present to outline to the elevator men the steps to be taken to obtain necessary repairs and supplies and to analyze the Priorities Regulations. The pro-

Coming Conventions

Trade conventions are always worth while, as they afford live, progressive grain dealers a chance to meet other merchants from the same occupation. You can not afford to pass up these opportunities to cultivate friendly relations and profit by the experience and study of others.

Apr. 26, 27. Nebraska Grain Dealers & Managers Ass'n at Hotel Fontenelle, Omaha, Neb.

Apr. 27, 28. National Co-operative Elevtr. Ass'n, Hotel Fontenelle, Omaha, Neb.

Apr. 29. American Corn Millers Federation, Morrison Hotel, Chicago, Ill.

May 4, 5—Illinois Grain Dealers Ass'n, Hotel Pere Marquette, Peoria, Ill.

May 7. Texas Feed Mfrs. Ass'n, Adolphus Hotel, Dallas, Tex.

May 8, 9. Texas Grain & Feed Dealers Ass'n, Adolphus Hotel, Dallas, Tex.

May 11, 12. Kansas Grain, Feed & Seed Dealers Ass'n, Lora Locke Hotel, Dodge City, Kan.

May 13, 14. Oklahoma Grain & Feed Dealers Ass'n, Youngblood Hotel, Enid, Okla.

May 15, 16. Panhandle Grain Dealers Ass'n, Herring Hotel, Amarillo, Tex.

May 22. Oregon Feed & Seed Dealers Ass'n, Multnomah Hotel, Portland, Ore.

June 1, 2. Pacific States Seedsmen's Ass'n, Biltmore Hotel, Santa Barbara, Cal.

June 4, 5, 6. American Feed Manufacturers' Ass'n, French Lick Springs Hotel, French Lick, Ind.

June 8, 9. Central Retail Feed Ass'n, Schroeder Hotel, Milwaukee, Wis.

June 12, 13. Eastern Federation of Feed Merchants, Arlington Hotel, Binghamton, N. Y.

June 17-19. Southern Seedsmen's Ass'n, De Sota Hotel, Savannah, Ga.

June 18, 19. Ohio Grain, Mill & Feed Dealers Ass'n, Deshler-Wallick Hotel, Columbus, O.

June 22, 23, 24. American Seed Trade Ass'n, Hotel Pennsylvania, New York, N. Y.

posed change in Soybean Grades will be discussed as will various other matters pertinent to our business.

"The Peoria Board of Trade is arranging excellent entertainment to follow our banquet, Monday evening, the 4th.

"These are times when one must keep abreast of what is happening and the future prospect for our business. It is not too early for you to make your arrangements to attend."

Dust Explosion Wrecks Head House of Texas Elevator

Two men were killed by flying concrete when a dust explosion wrecked the head house of the Burrus elevator at Lubbock, Tex., operated by the J. C. Crouch Grain Co.

The crash occurred at 9:31 a. m., Apr. 13, a sheet of flame driving from the ground level of the head house. There in the work story a tremendous gas pressure was built up within the heavy concrete confines of the work room, a space 15 ft. wide, 20 ft. long and 20 ft. deep, approximately. Concrete slabs were thrown a distance of 300 ft. Sacks were blown into trees surrounding the building. From each end of the structure large and small concrete slabs were scattered in every direction.

Two small concrete houses about eight feet square located at the base of the elevator at the north and south ends of the building were completely demolished. Large steel girders in the work story were warped several inches out of line.

The metal roof over the loading platform fell on a truck that was being loaded with corn, injuring a man on top of the truck. A man sitting in the cab of the truck with the window down was burned about the face and hands.

In the upper part of the head house, 100 ft. above where the men were killed, was V. K. Hays, weighmaster, who was not injured. Also uninjured were four men in the office separated from the loading platform by a concrete wall, H. B. Hankins, manager, Geo. W. Nolen, superintendent of the elevator, Bob Cooper, bookkeeper, and Frank White, traveling representative.

The dead are John C. Freeman, 48, mixer, who had worked at the elevator 12 years, and Adgie L. McDaniel, 37, mill helper, who had been employed at the plant about five months. Their deaths apparently were instantaneous, as they were buried under 10 feet of concrete, steel and grain.

The main storage bins appear not to have been materially damaged. The firemen were called at 5:30 in the afternoon and again at 8 p. m. to extinguish smoldering grain.

In store at the time was 1,130,000 bus. of grain. The grain had been let out of some of the bins when their outlets were blown open by the explosion that was propagated thru the basement conveyor tunnel.

The elevator was built in 1928. In the same plant an explosion of dust occurred Nov. 7, 1934, badly damaging five bins and cracking the walls of others down 25 ft. The walls of the cupola were badly damaged at that time.

Drivers of private trucks employed in interstate commerce are considered exempt from the Wage-Hour law, since they, like the drivers of common and contract carriers in interstate commerce, are regulated by Interstate Commerce Commission.

Presidential proclamation, influenced by recommendation of the tariff commission, has lifted import quotas affecting wheat and wheat flour in lots of 10 lbs. or less for experimental purposes; seed wheat for seedling and crop improvement in lots of 100 bus. or less; and any shipment of foreign wheat or wheat flour which has been diverted to the U. S. or its territories or possessions from destinations in foreign countries thru military or naval necessity or other emergency, when the Sec'y of Agriculture approves.

Letters from the Trade

[The grain dealers' forum for the discussion of grain trade problems, practices and needed reforms or improvements. Dealers having anything to say of interest to members of the grain trade are urged to send it to the Journals for publication.]

Exposed Concrete Dries Out Much Faster

Grain & Feed Journals, Consolidated: The writer has read the very interesting article in your April 8 issue by Mr. G. E. Blewett, Vice-Pres. and Gen. Mgr., The Fort Worth Elevators & Warehousing Co. The writer, with his little knowledge of the waterproofing of concrete, might be able to answer this particular question.

Concrete that is exposed to the sun always dries much faster than concrete that is in the shade. There is always a certain amount of moisture in the porosity of the concrete. The more opportunity the sun has to dry the moisture out of the concrete, the harder the concrete becomes. Therefore it is plain to see why the concrete will crack much sooner when exposed to the sun than when it is in the shade.

For some time we have been trying to advise grain elevator owners and operators that, although their concrete elevators may be in perfect condition at the time, a coating should be put over it in order to stop the sun from taking out all of the moisture that is in the concrete.—Briggs Bituminous Composition Co., J. D. Farber, Philadelphia, Pa.

Soybeans and the Finest Oats

Grain & Feed Journals: Your report of the Chemurgic Conference on Page 283 of the JOURNALS was made possible by the National Farm Chemurgic Council, working for and in the interests of Agriculture, Industry and Science. Your article brought out first, the Agricultural Experiment Station and its associated interest the U. S. Department of Agriculture. Both agencies perpetuated and supported by the people and who are working for the best interests of society.

The public haven't appreciated the importance of these agencies; neither have they given them the loyal support they deserve. Their work is so vital that every effort should be made to see that there is no interference, political or otherwise, that would retard or impair the work they are doing and can do. These agencies are supported by taxpayers' funds and are for the common good.

Second, the processing industry with its importance vital as that of the grower. Processors have made possible the wide use of the soybean and are continuing to work with all agencies for widening the use of the crop that offers the largest possibilities of increased uses. There is need of a better understanding of the relationship of the grower and the processor. This can be brought about through such articles as your trade journal presents together with personal and group efforts.

Third, the growers and their organized interests. Obviously the objective of growers can be summed up in—"the economy of production of oil per acre." This effort brings into the picture the interests above set out and emphasize the importance of working together. Surely there is no place for selfish interests. Growers have much to learn about efficiency of production; they need come to a full recognition that there must be a market for the product grown; this market is largely provided thru the processor. Farmers, particularly growers of soybeans, need also appreciate the importance of making wider use of soybean products in their feeding programs.

Now comes oats with a similar picture, one that has more than passing interest. A report

from one of the largest users of oats, gives this very encouraging and gratifying information about the oats grown in Illinois and purchased by his company. "85 per cent of the Illinois purchased grade No. 1 or No. 1 heavy for the year 1941. In commenting on oats grown from a neighboring state, a large producer of oats" 76 per cent of the 1940 crop from this state graded No. 3, with 88 per cent grading No. 3 for the 1941 crop.

The reason—Illinois has been growing Columbia and Marion oats very extensively of recent years, particularly the Columbia as the seed supply of Marion was very limited.

Of greatest significance is Columbia oats were developed by the Missouri Experiment Station and the Marion developed by the United States Department of Agriculture. This same commentator says, Marion oats are "finest in quality." The Illinois Experiment Station distributed both of these outstanding oats and the information given is evidence of the valuable contribution made in willingly distributing oats that had proven merit and produced by other colleges or agencies. This emphasizes the importance of removal of any and all selfish interests even from our Experiment Stations to the end that society in general may profit by the new developments.

Marion oats have made an enviable record in both yield and quality at the Illinois Station for some years. We have reasons to believe that there will be enough Marion oats grown in Illinois this year to meet the seed demand for the year 1943. With improved varieties, better cultural methods and harvesting, oats can be and are a profitable crop. Some encouragement from the extensive users of oats is in order.—J. E. Johnson, Champaign, Ill.

F. D. Milligan Dead of Heart Attack

Frank D. Milligan passed away in his home at Jefferson, Ia., after a heart attack Apr. 9, aged 66 years.

Familiarly known as "Frank" to a host of friends in the grain trade he had earned the esteem of Iowa grain dealers by his earnest work for the improvement of the grain business thru organized effort.

His sound advice was appreciated by the other directors of the Western Mutual Insurance Co., and valued in the administration of the affairs of the Western Grain & Feed Ass'n in which he held several offices.

In 1934 when trades were being placed under the N.R.A. Mr. Milligan was named a member of the Iowa Code Authority to represent the Western Grain Dealers Ass'n.

The old established and highly respected firm of D. Milligan Co. of which he was a partner, operated several elevators and lumber yards at nearby stations.

He is survived by Mrs. Milligan and two sons, Frank T. in the office of the firm, and Captain Robert P., who is now serving in the army.

A corn grind of 11,071,961 bus. during March for products going into domestic consumption is reported by the Corn Industries Research Foundation for 11 refiners of corn products. This compares with 9,732,297, bus. in February, and with 7,799,561 in March, 1941. The March rate, if maintained, would consume about 130,000,000 bus. of corn a year.

Conferences on Amendments to Rules for Grading Soybeans

To consider a proposed amendment to the official grain standards conferences will be held by the U. S. Dept. of Agriculture at Toledo, Ohio, Tuesday, May 5, at 2:30 p. m., Exchange Floor, Board of Trade; Chicago, May 6, 2:30 p. m., Room 1450, Board of Trade Building; Peoria, Ill., May 7, 2:30 p. m., Exchange Floor, Board of Trade; Cedar Rapids, Ia., May 8, 7 p. m., Roosevelt Hotel.

The proposals involve two considerations: (1) the adoption of the air oven rather than the water oven as the basic method for determining moisture content of soybeans, and (2) if the air-oven method be adopted whether adjustments should be made in the maximum limits of moisture content in the soybean grades to compensate for the difference in results obtained by the two methods.

Grain standardization research conducted by the AMA indicates that moisture-testing equipment now in use in inspection laboratories and at country elevators will provide results more nearly equivalent to those obtained by the air-oven method than has been the case with the present water-oven method. If the air-oven method is adopted, it may be desirable to increase the maximum limits of moisture content for the four numerical grades of soybeans, inasmuch as more than one-half per cent additional moisture is removed by this method than by the use of the water oven. The air oven works faster than the water oven.

If adopted, the revision will become effective with the harvesting of the 1942 crop.

Canadian Mills ground 51,418,881 bus. of wheat during the 7 months prior to Mar. 1, against 45,612,479 bus. during the like period of 1940-41, as reported by the Dominion Bureau of Statistics.



F. D. Milligan, Jefferson, Ia., Deceased

Crop Reports

Reports on the acreage, condition and yield of grain and field seeds are always welcome.

Gorham, Kan., Apr. 17.—Our coming crop will be a bumper from the looks of things now.—F. E. Nowak, mgr., Farmers Grain & Merc. Co.

Evansville, Ind.—The Wabash, White and Patoka Rivers went on a rampage near the middle of April and much growing wheat along them was under water for several days. It is not believed the crop will be seriously damaged.—W. B. C.

Evansville, Ind.—The southwestern Indiana wheat crop has made an excellent recovery during the good growing weather of the past ten days despite poor growth during the fall and winter. C. E. Skiver, Purdue wheat specialist, has announced.—W. B. C.

Vancouver, B. C.—Infestation of stored grain by rice weevil has occurred in Vancouver as elsewhere in Canada, but the affected grain has been thoroughly fumigated and the whole situation is now well under control, according to H. E. Gray, of the Canadian government's insect control service.

Blytheville, Ark.—Production of soybeans in Arkansas in 1942 as a part of the Food for Freedom campaign of the U. S. D. A. war board is expected to be almost three times what it was three years ago, according to E. A. Stacy, chairman of the Mississippi County U. S. D. A. War Board.—P. J. P.

Allen, Tex., Apr. 17.—No beans grown. Wheat 90% destroyed by green bugs; this land has been planted to corn. Oats, none; barley, none. Green bugs destroyed 100%; however, the acres were less than normal. Corn all planted but about 20% to be replanted, heavy rains the cause of replanting.—Lynde & Stacy Grain Co.

Kansas City, Mo.—Average protein of 994 cars of wheat tested during March by the Kansas City office of Kansas grain inspection department was 13.20% and 976 cars tested by Missouri averaged 14.02%. The total of 1,970 cars tested by both departments showed an average of 13.60%, compared with 13.62% on 1,361 cars in March, 1941.

Sublette, Kan., Apr. 18.—No bean crop here as we do not raise beans here at all. We have a very good outlook for wheat; have plenty of moisture, had around 2 inches of rain today. A lot of the crop is in 100% condition and the ground that is not in wheat will be summer plowed or put in feed.—The Co-operative Grain Dealers Union, Roy S. Brown.

Washington, D. C., Apr. 10.—The Apr. 1 indicated production of winter wheat is 624,983,000 bus., compared with the 1941 crop of 671,293,000 bus., and the 10-year (1930-39) average production of 569,417,000 bus. Condition of rye on Apr. 1 was 87 per cent of normal compared with 81 per cent a year ago, and 76, the 10-year (1930-39) average. This crop had an excellent start last fall and in all producing areas weather conditions to date have been favorable for its development.—U. S. D. A.

Winnipeg, Man.—The Dominion Entomological Laboratory recently issued a map showing the wheat stem sawfly situation for Western Canada for 1942, and indications are that infestation from this pest will be very serious over much of Western Canada. The infestation is most serious in the Western half of Saskatchewan and Central Alberta, but is fairly general from Portage la Prairie to Edmonton and south to the U. S. boundary.—Searle Grain Co., Ltd.

Springfield, Ill., Apr. 13.—Illinois winter wheat production prospect is down 45 per cent from 1941 production. This is slightly under the short 1928 crop, and the smallest since 1912. State condition at 77% compares with 72% last Dec. 1 and indicates a probable production around 19,456,000 bus. compared with 35,300,000 produced last year and the 10-year (1930-39) average of 36,413,000 bus. The acreage of winter wheat seeded last fall has been revised to 1,216,000 acres, a 34% reduction from 1,838,000 acres seeded in the fall of 1940 and stands as the record low seeded acreage since crop estimating records began in 1866.—A. J. Surratt, Statistician, Ill. and U. S. Depts. of Agriculture.

Manhattan, Kan.—Dr. E. G. Kelly, extension entomologist of Kansas State College, fears an invasion of green bug in southern Kansas. In the danger area, farmers should be prepared to plant catch crops in place of wheat, oats and barley destroyed by the pests. Crops suitable for this purpose are sorghums, soybeans and cowpeas. Approximately 60% of the oats in northern Texas already has been destroyed, according to a letter received from a Texas entomologist who states that the infested area extends from Hardeman County to Tom Green County and north to Limestone and Kaufman Counties.

Decatur, Ill., Apr. 18.—Oats are now pretty well seeded, and some of the early planted fields are up, showing good stands. While the crop went in late, the seed was good and moisture ample, favorable for quick germination. Continued favorable growing conditions should help to get the crop off to a good start. With so much mechanized farming, it is remarkable the amount of work that can be accomplished; it is surprising the amount of plowing already done. The soil is working up nicely, and with any kind of favorable weather from this time on, good seed beds will be prepared when it is time to plant corn and soy beans.—Baldwin Elevator Co.

Enid, Okla., Apr. 8.—Outside of complaints of green bug infestation in the southern part of the state, the wheat crop seems to be in almost perfect condition, with the exception of the eastern part of the state where we understand too much rain has caused some damage. A. W. Erickson reports that from Grandfield north and east, there is quite a severe infestation of green bugs, the damage of which to date however is not serious on wheat but has been serious on oats and barley. Green bugs have been reported as far north as Enid but not in sufficient quantities as yet to cause any fear of damage. We might say the weather the last few days has been favorable to the developing of green bugs.—E. R. Humphrey, sec'y, Oklahoma Grain & Feed Dealers Ass'n.

Winchester, Ind., Apr. 12.—Don't think any ways near half of the oats have been sown, just begun sowing yesterday and today. Ground has been too wet. A good many of the farmers are using fertilizer and ploughing the ground so as to insure a crop if possible. We are short of all kinds of feed. Wheat looks very well in this part of the country. One of our men was over towards Columbus, O., says the Ohio wheat doesn't look any ways near as good as ours. Acreage is smaller than usual and a number of farmers are sowing oats in their wheat expecting to make feed out of it. There will be no more soy beans in this part of the country than will be used for seed. Great many farmers held them back expecting high prices, but since they have been finding they were of low germination they have been putting them on the market.—Goodrich Bros., P. E. Goodrich, pres.

Topeka, Kan., Apr. 10.—A Kansas wheat crop of 166,936,000 bus., the fifth largest on

record, is indicated by the current crop report issued by the Bureau of Agricultural Economics and the Kansas State Board of Agriculture. The estimate is based on 10,712,000 acres sown last fall and an estimated yield of 15.5 bus. per seeded acre. The 1941 yield per seeded acre was 13.2 bus. and the 10 year (1930-39) average about 9.3 bus. April 1 condition of the growing crop was 89% of normal, the highest for April 1 since 1931. This compares with the 10 year (1930-39) average condition of 68%. Winter wheat was seeded under satisfactory conditions last fall over most of the western two-thirds of the State. In eastern counties seeding was delayed to avoid infestation of Hessian fly and by exceedingly wet weather. Much of the intended acreage in east central and southeastern counties was not seeded. Wheat has made excellent growth in central and western areas. Stands are generally good, plants well rooted, of good color and well stooled. In east central and southeastern areas however, stands are spotted and growth is small. Abandonment of seeded acreage probably has been the lowest on record for the western two-thirds of Kansas and the least for the State since 1931. The loss of acreage from winter killing, heaving or blowing has been relatively small although there has been considerable injury from Hessian fly and wet fields in eastern and southeastern counties. Winter and early spring precipitation have been favorable. Subsoil moisture conditions are the best in more than a decade and there is no shortage of moisture in top soil. The largest acreage of volunteer wheat in many years is growing in the western part of the State, a substantial part of which will be harvested for grain although many fields are being destroyed because of extremely thick stands and excessive top growth. Rye at 90% of normal was the highest reported on April 1 since 1931, and compares with 83% a year ago and 45% on April 1, 1940.—H. L. Collins, Agr. Statistician.

All available guayule seed is being planted in 700 acres of nurseries and about 2,000 acres are being set out in field plants in California, Texas, Arizona and New Mexico, in the government's guayule emergency rubber project.

Since the price of corn is relatively high in comparison with the price of commercial fertilizers, the recommended rate of application has been nearly doubled. Instead of recommending 65 pounds of fertilizer per acre, when checked in the hill for corn, the rate now is 100 to 125 pounds per acre. Where the fertilizer is drilled continuously in the row the suggested rate is 200 to 250 pounds per acre. At these rates under average farm conditions, a dollar spent for fertilizer will return about \$2.50 profit.—George Enfield, agronomist of Purdue University.

Daily Closing Prices

The daily closing prices for wheat, corn, oats, rye, barley and soybeans for May delivery at the leading markets have been as follows:

	Option		Wheat											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Chicago	134½	106½	123	122½	123½	122¾	123½	120½	121½	120½	119	119½	119½	120½
Winnipeg	82½	76½	79¾	79¾	79¾	79¾	79¾	79¾	79¾	79¾	79¾	79¾	79¾	79¾
Minneapolis	129	105½	116½	116	116½	117	116½	114½	115	114½	112½	113½	112½	114½
Kansas City	127½	102	115½	115½	115½	115½	115	112½	113½	112½	111½	112	111½	112½
Duluth, durum	122½	103½	116½	115½	115½	115½	115	112½	112½	113½	112½	112½	112½	113½
Milwaukee	134½	109	123	122½	122½	123½	122½	120½	121½	120½	119	119½	119½	...
			Corn											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Chicago	91½	72¾	88	88½	88½	87½	87½	85½	85½	86	86	85½	85½	86½
Kansas City	86½	67½	83½	83½	83½	83½	82½	81½	81½	81½	81½	81½	81½	82
Milwaukee	91½	72¾	88	88½	88½	87½	87½	85½	85½	86	86½	85½	85½	...
			Oats											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Chicago	60½	41½	56½	56½	56½	56½	55½	55½	55½	55½	54½	55	54½	55½
Winnipeg	51½	38½	51½	51½	51½	51½	51½	51½	51½	51½	51½	51½	51½	51½
Minneapolis	56½	41½	52½	52½	52½	52½	52½	51½	51½	51½	50½	50½	50½	51½
Milwaukee	60½	41½	56½	56½	56½	56½	55½	55½	55½	55½	55	55	55	...
			Rye											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Chicago	92½	63½	77½	77½	77½	77½	77½	76	76½	76½	74½	75½	75	75½
Minneapolis	87½	59½	73½	73½	73½	74	73½	71½	72½	72	70½	71½	71½	72½
Winnipeg	67½	52½	65	65½	65½	65½	64½	64½	64½	64½	64½	64½	64½	64½
Duluth	87½	69	73½	73½	73½	74½	73½	71½	72½	72	71	71½	71½	...
			Barley											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Minneapolis	68	53	59½	59½	59½	59½	59½	58½	59½	59½	58½	59½	59½	59
Winnipeg	64½	49½	64½	64½	64½	64½	64½	64½	64½	64½	64½	64½	64½	64½
			Soybeans											
	High	Low	Apr. 8	Apr. 9	Apr. 10	Apr. 11	Apr. 12	Apr. 13	Apr. 14	Apr. 15	Apr. 16	Apr. 17	Apr. 18	Apr. 19
Chicago	203½	139½	190	188½	186½	187½	186½	186	186½	186	183½	183½	184½	185
Canada Exchange	...	...	86½	86½	86½	86½	87	87	87½	87	87½	87½	87½	...

Grain Movement

Reports on the movement of grain from farm to country elevator and movement from interior points are always welcome.

Duluth, Minn.—A 10,000-bu. lot of the 100,000-bu. cargo of Canadian barley recently received here was railed out enroute for Mexico. It is expected that this rate of shipping will continue weekly until the stock here has been loaded into box cars.

Springfield, Ill., Apr. 13.—Farm stocks of oats are the third and wheat the fifth largest for April 1 since 1926. April 1 stocks of grains on Illinois farms with 1941 and the 10-year (1930-39) average stocks in parentheses follow: Corn, 232,375,000 bus. (182,661,000) (148,834,000); wheat, 4,973,000 bus. (3,536,000) (4,384,000); and oats, 53,939,000 bus. (53,395,000) (42,001,000).—A. J. Surratt, Statistician, Ill. & U. S. Dept. of Agriculture.

Decatur, Ill., Apr. 18.—Stocks of soybeans on Illinois farms Apr. 1, as estimated by the Department of Agriculture, show 13,756,000 bus.—13% above the previous high record of 12,173,000 bus. on Apr. 1, 1940. Of this amount they will probably use approximately 6½ million to seed this year's record acreage. Commercial beans are moving to market very slowly, many lots carry excess moisture and will cause trouble and heavy loss at this season of warmer temperatures. Some damage has already shown up in recent arrivals.—Baldwin Elevator Co.

Topeka, Kan., Apr. 10.—A complete enumeration of Kansas commercial grain stocks as of Feb. 16, 1942 showed 92,118,000 bus. of grain including 84,294,000 bus. of wheat in commercial storage on that date. Also that of the total rated commercial grain storage capacity for Kansas of 123,506,000 bus. there were only 25,174,000 bus. of unoccupied space. It now appears there will be a very serious shortage of both commercial and farm storage space and that

Quality 1941 Corn Above Average

The quality of inspected receipts of corn at representative markets in the principal producing states December 1941 through March 1942 was above average and higher than that of the 1940 crop, the Department of Agriculture reports. A somewhat larger than average percentage of the inspections classed as Yellow.

Sixty-six per cent of the receipts inspected at representative markets during this 4-month period graded No. 3 or better, compared with 52 per cent for the same period last season and 53 per cent for the 7-year (1934-40) period. Twenty-six per cent graded No. 4, same as the 7-year average; 6 per cent graded No. 5 compared with an average of 17 per cent; and 2 per cent Sample Grade compared with the 7-year average of 4 per cent.

The moisture content has been the principal grade-determining factor for practically all of the 1941 crop. Cracked corn and foreign material have not been grading factors of any importance. Practically all of the 1941 crop corn is well matured, which should mean very little breakage through artificial drying. Total damaged kernels content has been very low and most of the corn would grade No. 2 or better on this factor.

On the December-thru-March inspections, 90 per cent classed as Yellow this season compared with 87 per cent for the 1940-41 season and 83 per cent for the 1934-40 average. Eight per cent of the inspections were White corn compared with 10 per cent last year and the 7-year average of 12 per cent. Only 2 per cent classed as Mixed corn compared with 3 per cent last season and 5 per cent for the 7-year average. The proportion of Mixed corn receipts of the 1941 crop was the lowest since the Federal Grain Standards were first established in 1916.

difficulty will be experienced in storing the Kansas 1942 wheat crop.—H. L. Collins, Agr. Statistician.

Washington, D. C., Apr. 10.—The Apr. 1 farm stocks of wheat, estimated at 270,122,000 bus., are 40 per cent larger than the stocks of 193-, 244,000 bus. on the like date last year, and are the highest Apr. 1 farm stocks on record. Stocks of oats on farms on Apr. 1, were 430,565,000 bus., which is about 41 million bushels or 9 per cent less than the 471,145,000 bus. held on Apr. 1 last year. These stocks are 57 million bushels or 15 per cent above the 10-year (1930-39) average farm stocks of 373,240,000 bus. Stocks of corn on farms on Apr. 1, were 1,286,720,000 bus. This is about 55 per cent above the 10-year (1930-39) Apr. 1 average of 828,331,000 bus. and is the largest for this date on record, slightly exceeding the previous record of 1,273,015,000 bus. on farms Apr. 1, 1940. For the corresponding date last year corn stocks amounted to 1,199,139,000 bus. Disappearance of corn from farms during the first three months of 1942 was the heaviest on record, amounting to 725 million bushels.—U. S. D. A.

Ottawa, Ont., Apr. 16.—Canadian wheat in store for the ten-day period ending Apr. 10, decreased 6,898,235 bus. as compared with Mar. 31 and decreased 18,203,636 bus. when compared

with the week ending Apr. 11, 1941. The amount in store was reported as 455,807,513 bus. compared with 462,705,748 bus. for Mar. 31 and 474,011,149 bus. for the week of Apr. 11, 1941. Wheat receipts in the Prairie Provinces for the 10-day period ending Apr. 10, amounted to 1,918,091 bus., an increase of 534,784 bus. over the revised figures of the previous week when 1,383,307 bus. were marketed. During the week ending Apr. 11, 1941 the receipts were 3,516,238 bus. Marketings in the three Prairie Provinces for the 36 weeks from Aug. 1, 1941 to Apr. 10, 1942, as compared with the same period in 1941 were as follows, figures within brackets being those for 1941: Manitoba 34,159,679 (45,302,919); Saskatchewan 88,530,229 (181,024,389); Alberta 54,463,292 (120,170,832) bus. For the 36 weeks ending Apr. 10, and the same period in 1941 177,153,200 and 346,498,140 bus. were received from the farms.—S. A. Cudmore, Acting Dominion Statistician.

Receipts and Shipments of Grain

Reports of receipts and shipments of grain at the following markets during March, 1942, and March, 1941, reached us too late for inclusion with reports on page 281 of the Apr. 8 number of the Journals:

1941 USDA Corn Loans

The Department of Agriculture has reported that Commodity Credit Corporation made 99,700 loans, in the amount of \$76,435,077 on 104,689,119 bus. of 1941 crop corn through April 11, 1942. Loans made to date have averaged 73 cents per bushel. Loans by states follow:

State	No. Loans	Bushels	Amount
Illinois	20,130	27,642,223	\$20,709,594.89
Indiana	1,489	1,574,059	1,171,365.49
Iowa	41,772	44,761,852	32,516,007.64
Kansas	1,240	967,691	724,558.24
Kentucky	56	159,098	125,660.78
Maryland	7	4,859	4,081.47
Michigan	6	2,095	1,586.53
Minnesota	8,509	7,837,685	5,419,739.22
Missouri	2,366	1,764,483	1,375,509.88
Nebraska	19,320	16,044,469	11,564,649.02
North Carolina	25	19,306	11,575.56
North Dakota	79	101,323	52,492.07
Ohio	808	562,413	437,805.22
South Dakota	3,877	3,247,713	2,313,077.63
Virginia	1	1,086	684.18
Wisconsin	15	8,844	6,659.37
Totals	99,700	104,689,119	\$76,435,077.19

USDA Wheat Loans

The Department of Agriculture has reported that through April 11, 1942, Commodity Credit Corporation made 517,627 loans on 357,491,633 bus. of 1941 wheat. The wheat under loan includes 117,918,615 bus. stored on farms and 239,573,018 bus. stored in public warehouses. Repayments to date amounted to 39,377,371 bus. and 12,573,247 bus. had been delivered to the Corporation. A total of 305,541,015 bus. remained under loan as of April 11. Loans by States follow:

State	Farm Loans (Bushels)	Warehouse Storage (Bushels)	Amount
Ark.	4	1,795	1,938.49
Calif.	207	383,381	792,829.38
Colo.	9,850	3,602,935	6,657,165
Del.	989	512,097	601,654.09
Idaho	6,175	2,715,186	7,683,152.78
Ill.	29,118	950,334	12,532,596.28
Ind.	18,018	762,083	5,841,194.85
Iowa	3,025	38,632	749,734.83
Kans.	108,992	20,009,493	77,773,977.92
Ky.	2,804	1,191,913	1,332,938.79
Mo.	3,643	6,169	1,925,965.01
Mich.	3,419	372,824	796,242.96
Minn.	18,509	3,360,300	7,114,405.38
Mo.	21,394	191,004	5,838,632.13
Mont.	25,120	20,650,399	29,919,988.57
Nebr.	49,157	9,832,223	23,894,371.16
Nev.	3	3,933	2,077.90
N. Mex.	460	87,304	819,792.71
N. Y.	343	13,407	120,890.92
N. C.	51	8,456	9,753.34
N. D.	79,226	32,046,111	61,957,547.80
Ohio	16,615	767,033	7,260,103.83
Okl.	33,993	2,401,597	17,078,176.97
Ore.	4,463	2,900,266	18,762,269.45
Penn.	1,700	5,141	515,814.04
S. C.	1	1,786	2,178.92
S. D.	48,111	8,902,622	19,778,131.22
Tenn.	1,826	568,644	635,433.49
Tex.	23,299	1,944,909	17,305,716.54
Utah	842	1,192,286	1,244,138.53
Va.	1,267	16,191	445,310.40
Wash.	8,451	3,532,914	19,500,243.77
W. Va.	62	32,633	36,630.77
Wis.	3	288	173.27
Wyo.	1,487	1,228,790	865,040
Total	517,627	117,918,615	\$351,254,824.80

	WHEAT Receipts		Shipments	
	1942	1941	1942	1941
Duluth	3,183,320	2,149,101	637,820	284,591
F. William	9,195,020	2,221,198	1,945,226	405,068
Indianapolis	181,000	260,000	115,000	263,000
N. Orleans	.....	.....	60,670	45,516
N. Y.	1,497,325	909,041	2,708,000	1,064,000
Phila.	149,205	1,124,437	70,865	724,759
	CORN			
	1942	1941	1942	1941
Duluth	594,060	412,345	.....	9,388
F. William	34,913	54,625	38,483	57,569
Ind'apolis	2,185,500	2,142,000	1,300,500	1,506,000
N. Orleans	237,526	10,301	122,570	97,000
N. Y.	1,425	143,035	.....	80,000
Phila.	43,254	190,674	16,579	114,808
	OATS			
	1942	1941	1942	1941
Duluth	2,250	56,237	.....	.....
F. William	949,715	1,225,563	1,395,784	1,792,075
Ind'apolis	466,000	522,000	604,000	594,000
N. Orleans	17,432	.....	74,366	26,310
New York	10,200	45,458	.....	.....
Phila.	6,961	12,730	9,150	10,794
	RYE			
	1942	1941	1942	1941
Duluth	103,890	23,505	107,605	19,605
F. William	238,818	81,142	27,942	24,162
Ind'apolis	42,000	48,000	21,000	42,000
N. Orleans	.....	1,500	.....	.....
N. Y.	3,142	1,071	.....	.....
	BARLEY			
	1942	1941	1942	1941
Duluth	158,770	292,551	401,345	142,763
F. William	412,903	495,156	887,970	776,146
N. Y.	5,100	498,622	.....	236,000
Phila.	.....	1,248	696	318
	SOYBEANS			
	1942	1941	1942	1941
Ind'apolis	37,500	141,000	28,500	106,500
	FLAXSEED			
	1942	1941	1942	1941
Duluth	4,505	159,377	45,600	125
F. William	146,346	51,481	271,650	64,396
N. Y.	1,289,960	810,000	.....	.....

Open Interest in Future Deliveries

As reported by C.E.A. the open interest in all futures on the Chicago Board of Trade recently has been as follows, in 1,000 bus.:

	Wheat	Corn	Oats	Rye	Soy beans
Sept. 13	52,951	35,164	19,019	18,457	10,729
Sept. 20	53,660	35,677	18,257	19,235	10,794
Sept. 27	55,510	38,018	18,993	19,990	10,525
Oct. 4	57,679	40,353	18,873	20,815	10,974
Oct. 11	59,115	40,329	18,289	20,834	10,833
Oct. 18	61,808	40,148	16,274	19,989	10,193
Oct. 25	61,550	41,304	16,765	20,081	9,817
Nov. 1	62,584	41,844	16,985	20,480	9,584
Nov. 8	63,592	42,348	16,924	20,827	9,548
Nov. 15	62,968	42,254	16,694	21,257	9,432
Nov. 22	64,407	40,090	16,941	21,200	9,532
Nov. 29	60,385	42,446	15,668	20,888	9,046
Dec. 6	49,231	42,915	14,069	15,301	9,012
Dec. 13	40,908	43,432	13,402	19,225	6,992
Dec. 20	40,058	43,725	12,832	19,328	6,893
Dec. 27	39,077	44,586	12,014	19,566	6,888
Jan. 3	38,347	46,892	12,184	19,819	6,921
Jan. 10	35,946	49,912	12,575	21,272	6,733
Jan. 17	34,824	55,212	12,453	23,268	6,406
Jan. 24	36,400	61,695	12,853	24,387	6,525
Jan. 31	35,395	65,190	12,969	26,702	6,889
Feb. 7	34,643	65,459	11,977	27,667	6,886
Feb. 14	34,742	65,726	12,346	27,257	6,872
Feb. 21	34,255	65,673	12,436	27,353	7,100
Feb. 28	34,087	66,328	12,393	28,604	7,195
Mar. 7	35,587	67,631	12,582	29,186	7,479
Mar. 14	34,824	67,530	12,621	29,381	7,260
Mar. 21	35,602	66,905	12,134	29,495	6,880
Mar. 28	36,090	68,597	12,209	29,548	6,852
Apr. 4	36,133	71,513	12,202	29,429	7,060
Apr. 11	36,339	73,144	12,616	29,801	6,960
Apr. 18	35,564	71,031	12,671	27,633	6,697

Discrepancies in Moisture Tests

By HAROLD WILBER, grain elevator superintendent, A. E. Staley Mfg. Co., before Society of Grain Elevator Superintendents

The moisture content of grains is the one grading factor in which the grain handler and the processor are most interested. It is moisture content which not only enters to such an extent in the figuring of the yield but it is one of the considerations in the keeping quality of the grain. Moisture is prevalent in all of the grain which we handle, but the determination of moisture content is one of the most difficult analyses to make.

Those of us who came thru the country grain business know of the time when we bought just "wheat" or "corn" or bushels or acres. Margins were wide and the law of averages helped take care of the dealers thru the average crop. Competition became stronger, margins narrowed and grain was purchased in the country with such a stipulation as "if it is dry and all right." Competition continued to strengthen and the country started to buy grain on grade. The ordinary farmer looked at this with some suspicion. As to moisture, his grain was generally dry even if his neighbors' grain was on the damp side.

Then came the Brown-Duvel tester. The farmer saw the grain weighed, the moisture boiled out and measured. Altho he might not admit it, on the way home he sort of figured that if the water was accurately measured, it might be somewhere near right. He did not know of the many things which affected the test. The checking of the rate of heating, inaccurate shut-off, the amount of oil used, the height of the thermometer in the oil and a lot of other things were that little about. He did not know that we actually manufactured water in the process of heating and he did not know that we vaporized only a part of the water in the grain to off-set this. When we burn a gallon of gasoline in the family car we make water vapor which if condensed would make almost a gallon of water but gasoline is not by any means 100 per cent water.

From that day, we have made some steps forward but certainly we have a long way to go yet.

The chemists attempt to determine moisture by several methods. There are the ovens of different kinds using different temperatures, some in presence of gases, different conditions, some at atmospheric pressure and some with vacuum, some with desiccants and a lot of other variations.

In most of the high temperature ovens we know that oxidation affects the weight. We know of the volatiles other than water driven off to upset calculations. We know that when molecules of H. C. and O. rearrange themselves there is formed some H₂O, CO, and CO₂.

At present, the electrical devices are in favor. Some measure by conductivity and some by capacitance. Moisture content does affect electrical resistance but it is possible that other things may do the same. Temperature is corrected for with a lead pencil (at present using a constant, when it is known that is a variable). It can be shown that the variety of bean has some effect. What about the same variety grown under different conditions of soil and climate? What about the effect of damage and different kinds of damage? We may take ten different alloys of copper all 99.9 per cent pure, but the character of that other .1 per cent will have the effect of varying electrical resistance over a large range. These different factors should be systematically investigated and either make up our minds to disregard them as negligible or set up corrections to take care of them. The capacitance machines seem less affected by mixtures.

The Brown-Duvel is the most widely known of the distillation methods and its shortcomings are recognized. Distillation with toluene and benzene are coming into the picture and seem to

have some promise. These two methods seem to discolor and decompose the material being tested to a small degree.

The extraction methods take into consideration the volatiles other than moisture. The De Bruyns method and the reversibility studies are techniques for the experienced chemist in the modern laboratory. The corn products industry has been working on the possibility of actually determining the apparent moisture in corn and seem about ready to answer that it is possible, particularly on finely ground corn.

Our present yardstick, the Tag, has one advantage in that it is a sort of fool proof method which will check itself fairly well in different offices. The soybean industry is not only interested in a method which will check itself but in one which will serve as a yardstick for this complex mixture of water and dry matter both going to and coming from the process after known losses are deducted. Dry matter basis yields at present do not check. You who have been drying beans have found to your sorrow that drier shrinks as determined by weights in and out are considerable more than the Tag determinations indicate.

Eggs were sold at one time just as eggs. Now the customer who wants large eggs and is willing to pay the price can buy them by weight and be assured that the eggs are as large as he expected. For the ordinary middle sized egg, dealers are made with perfect confidence on both sides. There is a market for the small egg and the customer who buys small eggs knows just how small they will be. The soybean processor is buying this complex mixture of dry matter and water blind-folded. The different methods of weighing his eggs are not satisfactory. They are measured with one yardstick coming in and another going out. He is willing to pay full price for his eggs but as yet he has no way of seeing just what he gets.

The oven is given us as the last word. We wonder if we are not in somewhat the same position as the farmer and the Brown-Duvel. The Department gives directions for the use of both the water and the air oven. The last sentence of the instructions in each read "replicate determinations should check within .1 per cent." They should also check on dry matter basis on whole beans as well as product.

The corn products industry has found that using whole corn, the air oven runs low compared with the "apparent" moisture in the ordinary range about 1.9 per cent. By the same yardstick the water oven runs around 2 per cent low. The Tag runs from 1.16 to 2.35. We have tried to tie the Tag to the ovens, but the ovens do not agree and the Tag runs below the ovens.

A new set of conversion tables were issued for the Tag just before the movement of the last crop, lowering the moisture on beans from .6 per cent to .9 per cent and left the determinations of the higher ranges up to an extension formula. Is it any wonder that we cannot tie our shrinks to our moistures in and out? Was the first set of tables incorrect all of these years?

Calibrations of the Tag have evidently been made on laboratory samples of beans which have tempered to each other and within the individual berry. We must take into consideration that country run beans as they arrive in the car are distinctly a mixture, covering sometimes quite a range. If we had some sort of "litmus" like color indication for moisture, the wet ones being red, the dryer ones being blue, in the car we would have all sorts of rainbow stratas. We would have red streaks, blue streaks, violet streaks. On looking closer, we would find red beans with blue spots and vice versa as the wet and dry beans touch each

other. In other words, the country run probe sample and the tempered laboratory sample are two distinct breeds of pups.

It has been suggested that trials be given the low temperature oven in vacuum over a desiccant in presence of certain gases. Also distillation with toluene or benzene may have possibilities. We all ask only one thing, to tie yields on a dry matter basis to beans in and product out. Why not tie our moisture methods to process yields? In other words, why not a yardstick which will work both ways?

At this time it is up to the bean processor to produce every pound of food that is possible and then it will not be enough. No one must fall down in producing a single pound that is so badly needed by some one somewhere. The profit, welfare or convenience of any one must not stand in the road. We must all work to that end and to work to the most productive end, we must have tools and gauges upon which we can depend.

The bean processor as any other manufacturer must look after the division of the product dollar. The owners who furnished the capital to buy the tools must have his share, the management must have its fee for keeping the wheels in motion, the man who uses the tools must have his just part and the man who produces the raw material must have each unto himself as it is due him, but in order to do this last thing, we must know the size of our eggs.

Dual Grading of Grain

By C. E. GROSSMAN, Scoular-Bishop Grain Co., Omaha, before Society of Grain Elevator Superintendents.

Dual grading is the practice of issuing two or more grades on a car that has inferior grain loaded in the bottom. This does not refer to cars loaded in layers, classed as unevenly loaded. When a re-inspection and Federal appeal are called on a car of this type, the sampler takes what is called a set up, or a sample of the good grain, and a sample of the inferior portion. Then the car is graded according to the estimated amount of each kind of grain left in the car. They will probably grade a part from 1/5 to 1/2 of what remains in the car a lower grade, and we get a discount on this part.

What about the time element and our operating cost? It takes about as long to unload a car like this as it would to unload three cars, and when you are fighting demurrage, it means three debits, or \$6.60. When you run into a car of this type, most of the time there is from 30 to 60,000 lbs. out of the car. We don't know what the actual grade of this grain is, because you certainly have a part of the inferior grain in it. It probably has enough that we should get a discount on it, but how are we going to do it? If we drop it back in the car, they won't be able to reach the bottom and we can't get an official grade in the scale. You sometimes hear the remark that the sampler got a poor sample. We know that the regulation probe is 67½ inches long and when a car has seven to eight feet of grain in it we won't get any of the last two or three feet, regardless of how carefully a car is sampled. Most grain and elevator men know this. In houses having small scales where two drafts are made of all cars, the chances are that most of the draft is back in a bin, by the time you find the grain in the bottom.

Let's see what the approximate cost to us would be, taking car billed in at 120,000 lbs. and have half unloaded when we discover what is in the bottom. Labor cost will vary, depending upon the location and size of the crew, so take two shovellers at 60 cents an hour and we have \$2.40 for labor, 3 debits, or \$6.60. We have a thousand bushel of grain that we should get ½c or more discount per bushel say \$5.00 a total of about \$14.00 plus the labor cost of the rest of the crew, and the headaches that go along with this kind of car. Say they give us a grade of sample grain on one-half the balance, about 500 bus. and our firm gets a discount of 3c a bushel on it, or \$15.00. When you add the

labor cost of the balance of your crew to your shovelers, it costs us more to handle this kind of car than we get out of it.

If we sell the balance of the car to some one else, we still have most of the above cost, plus the switching charges. So why should we and our firm be penalized? I have known of cases where it has taken as long as three hours to unload cars of this type, and know of a few cases where the cars were graded as plugged.

All of which reminds me of something that happened to me some years ago. I received a very nice letter from a country station manager stating that car so and so loaded with about 85,000 lbs. had some bad grain in the bottom put there by a mistake of one of his employees. Would we please try to separate it for him. This station shipped us quite a bit of grain so we spent several hours unloading this car and gave him the amounts of each kind of grain. We received a few more cars from him and they were put in a small bin. When I went to load out, using about 25% of this, I discovered that the letter and first car was just adding insult to injury, because the inferior grain in the bottom was no mistake.

A lot of us have cars fall down from time to time on damage or something else, when the office asks about it, we tell them we don't know what happened, that we weren't using anything like that. Yet I believe that a lot of our trouble especially on damage is due to cars loaded with inferior grain in the bottom that we missed when unloading. All of us know that one way to stop it is for the whole car to be graded on the inferior portion.

I understand that the inspection offices are working on instructions issued to them. They look at it this way. How do we know that the grain was put there with the intention of concealing it. Well, give them the break on the first car, but couldn't some system be worked out where shippers of a car of this type was posted at all federal inspection offices, so that any recurrence of that kind of loading could be checked? And enough penalty placed on them so that this kind of loading would not be repeated.

Cyclone Destroys Wood Storage at Alvin, Ill.

A cyclone destroyed the wood storage annex of George L. Merritt's reinforced concrete elevator at Alvin, Ill., on Mar. 16.

The 10,000 bu. cribbed and iron-clad annex was completely demolished. Little remained above its foundation when the storm was over. Wood cribbing was torn apart by the force of the twister and scattered far and wide over much of the countryside.

Several Alvin buildings were demolished. During the course of the storm six persons lost their lives and 37 were injured so severely that they had to be sent to a hospital.

Mr. Merritt's original concrete elevator suffered little damage. All connections between it and the wood annex were twisted away.

After 20 years of buying grain at Alvin, Mr. Merritt felt his cyclone-wrecked property was reason enough to retire. So he sold his site, the concrete elevator and the foundation on

which new storage space could be erected, to Frank E. Yeazel. Mr. Yeazel immediately began repairing the damage and expects to have the plant open for business again in a few weeks.

Photos, supplied us thru courtesy of Mr. Merritt, illustrate the extent of the tornado's damage.

Venting for Safety

By H. L. HEINRICKSON, Terminal Grain Co.,
Sioux City, before Society of Grain Elevator
Superintendents.

Are you whistling in the dark?

Today, as always this whistling in the dark, as regards our venting problems is a very sad affair.

Are you saying to yourself, something like this, "never had a Dust Explosion, probably never will."

The odds are against it, so why should I worry. Wishful thinking this whistling in the dark. Dust explosions have occurred and sorry to say, surely will occur again. Just when, just where nobody knows. But, in times like these you can help forestall them by proper venting and dust control. Ninety per cent of dust explosions start in legs, where conditions are ideal and almost impossible to control, for one never knows when the combination of dust air and a spark might ignite then spread, causing first a minor explosion then a secondary and so on.

By removing the fine dust, this so-called dust in suspension you remove a major risk. This can be accomplished by ushering out this dust to the open air, thru proper venting, thus reducing the possibility of a secondary explosion, then a third which has been known to cause tremendous damage and loss of life.

We cannot be too careful during this crisis, as to the care of the stock of grain and other commodities entrusted to our keeping. Therefore, think back, think of your own plants and see if you can't recall some dangerous places which need venting. Have you any blind tunnels. They are bad. Just dead end streets. Break an opening in the end wall or ceiling and vent them.

Are your basement tunnels vented? Why not?

How about your legs, at the top of the house? Are they vented? Have you plenty of ventilation on the top floor? Do you see that your whole plant has plenty of ventilation?

I know some of you will scoff and others will say that the price will be too great, but do you stop to think how simple and inexpensive you can take this precaution. Take for instance your elevator legs. It is a very simple and inexpensive process to vent them, also vent your garner and scale hoppers.

Get all blind tunnels open, for safety and convenience. Consult some good venting engineer on your more difficult problems, they will gladly help you, and who knows may save your plant, your men's lives and your stock in trade.

Your government code book No. 562; Safety Codes for the Prevention of Dust Explosions is available, I believe, by simply writing for it so let's get air minded in this business of ours, and be on our toes, to eradicate this horrible

monster, which is always threatening our lives and plants.

Keep your floor sweeps in working order and use them. See that your fire heated driers are equipped with reliable automatic dampers for regulating temperatures in your drier and an independent automatic device which will effectively and reliably prevent temperature rises, to a dangerous point.

Your boots should be dust tight with positive aspiration or vents to the outside. Your belt loaders and dischargers should be vented or equipped with choke feeds. Keep your dust collecting system free and in good working order.

Have all defective wiring remedied and don't let your men work with poor lighting equipment around your legs. Blow out your motors at regular intervals to prevent heating and sparks. See that there is no friction or rubbing of pulleys which will create sparks in or around your moving belts.

Keep your switches clean and see that all fuses are tight and motors properly grounded. And never throw water on a burning pile of dust as it will scatter the fire. Pick it up in a metal scoop or basket. With proper venting and good housekeeping you can attain a great deal toward our goal of no dust explosions.

100,000-Bu. Concrete Elevator at Waldeck, Kan.

Among the imposing reinforced concrete country elevators that are contributing to the rapid handling and storage of Kansas wheat is the 100,000-bu. plant of the Farmers Co-operative Elevator Co. on a branch of the A. T. & S. F. railway at Waldeck (Cunningham p. o.), in Pratt County, one of the banner wheat counties in the state.

The elevator consists of four concrete tanks, each 15 ft. in diameter and 112 ft. high, with a driveway thru the middle of the house, under the 11 overhead bins nestled between the tanks. The elevator has a full basement and two receiving sinks, each of which will hold 1,200 bus.

Equipment includes an overhead truck lift in the driveway, carried on 20-ft., 20-lb. rails, and operated with a 5-h.p. motor. The leg has elevating capacity of 3,000 bus. per hour. It uses a 12-inch, 5-ply rubber covered belt, carrying 11x6-inch Nu-Hy cups on 8-inch centers, and motor driven thru a combination head drive. The Richardson shipping scale has capacity to weigh 2,500 bus. per hour into cars loaded thru a well-casing loading spout with flexible tip. An electric manlift speeds passage of workmen between the work floor and the cupola floor. All sheet metal spouting, the manlift, the trucklift and the head-drive were furnished by J. B. Ehrsam & Sons Co.

A two-room frame office and a 20-ton Fairbanks Truck Scale with 9x34 ft. deck services this elevator. Both the elevator and the office were designed and built by Chalmers & Borton.

Headquarters for the company are at Cairo, 4 miles away, where the company has a 10,000-bu. frame elevator, and where G. W. Rosenbaum, the general manager, maintains his office. Local manager at Waldeck is Gene Waters.

For illustration, see outside front cover.



The Wind Stripped Geo. L. Merritt's Concrete Elevator at Alvin, Ill., of its annex recently.

Superintendents Discuss Many Pressing Problems

[The Society of Grain Elevator Superintendents of North America held its 13th Annual Convention in the Paxton Hotel, Omaha, April 9, 10, 11. Thanks to the untiring work of Charles Walker, Harry Clark, Omaha's Chief Inspector, and Jerry Lacy and the local committees this proved to be one of the most fruitful conventions held by the Society. The weather was ideal and each session was well attended.]

FIRST V. P. GILBERT LANE, Arcady Farms Mfg. Co., Chicago, called the first session to order.

R. M. SCOLAR, pres. Omaha Grain Exchange, extended that organization's greetings, adding: You superintendents have about the easiest job in the grain industry. You get loading orders on a bunch of stuff, miss a few cars, the boss raises h---, then you do something. That must be easy because the rest of it comes out all right.

The underlying reasons for such bad blood between nations is open to argument, but ends up with some phase of economy as the basic trouble, lack of free trade, too many barriers and other similar trends of thought, but one thing is certain, that the people of the world are under ever increasing political supervision and control, and in this respect all nations have something in common.

In the early stages of this war the element of surprise in weapons and their use was quite important, giving the advantage to the aggressor who has long had plans for each step. Now the advantage lies with those able to produce the most, the fastest. In such a race, the U. S. A. should have no equal in material wealth and the ability to use it. But one thing is very important.

As individuals and as a group, banded together into a single industry, we have a definite responsibility to perform the job we know, the one we are on, in the most efficient manner humanly possible. We now must consider our rights and privileges, formerly so jealously guarded, absolutely secondary to doing the job that confronts us. No matter how confused the picture seems to be, no matter how muddled you know isolated efforts to be, no matter how much it seems we are going in all directions at once, we must realize that we see only a very small

part of the entire picture. The important thing is that each individual do his part, each group and industry their part, and these efforts added together are bound to mean progress.

If we pledge ourselves and our organizations to deliver, if every other individual and organization does likewise, there isn't any German, Italian or Japanese system or any one, two, or three way combination of such totalitarian systems going to be able to crush us.

PRES. PAUL CHRISTENSEN, Van Dusen-Harrington Co., Minneapolis, responded, after which he read his annual address from which the following is taken:

PRES. CHRISTENSEN'S ADDRESS

The past year has been quite a successful one for our Society, due principally to the work of our 1st vice-pres., Gil Lane, and our 2d vice-pres., Bart Pow, our directors and some of our chapter presidents. We have increased our membership materially.

The past year, I believe, the local chapters have been more successful in interesting managements and breaking down some of the old, unfounded prejudices than ever before. The annual managers' dinners sponsored by most chapters were quite well attended by the "bosses."

Our Safety Contest has been more successful than in the past. Our efforts were recognized by the National Safety Council, and slowly but surely, this most worthwhile undertaking is being acknowledged by the management and members of our Society. I must give credit for whatever success we have enjoyed in this field to whom it is due. For the past several years, the safety organization within our Society has been an uphill struggle, and most organizers would have long ago given it up. We were, however, fortunate in having a man who knew he was working for something worthwhile, and stuck to the payless, and at times, most thankless, task. This man is Clarence Turning. All of us interested in safer operation of our plants thank him most sincerely for his efforts and trust that he will continue to work for the greater success of this undertaking.

I have purposely left the outstanding achievement of the year until the last, that is the organization of our new Omaha Chapter. Last year when we were invited to Omaha for this convention, we had just two active members in this territory. Since then, the fellows have done the finest job of organizing that has been the Society's privilege of enjoying. They have gotten 100% membership for this market, have held many successful chapter meetings, and before this meeting is over, I am sure you will all agree they have one of the best conventions we have ever had.

The officers and committee members of our local chapter who have labored faithfully to make this meeting an outstanding success are unanimous in declaring the lion's share of credit goes to Harry Clark who, I know, has put in a great deal of time and effort to make this convention successful. On behalf of the officers and members of the Society, I wish to thank the Omaha Chapter and Harry Clark for their excellent job.

SECY DEAN M. CLARK, Chicago, in his annual report said in part:

SECRETARY CLARK'S REPORT

In times of stress the real value of a trade association is realized and appreciated as never before. Calls upon our time and attention for service have trebled since last summer. To bring a little closer home what this means in everyday terms can perhaps best be done by citing that for the past ten months since our

last convention we have used 4,000 sheets of first class letterheads and 3,000 sheets of printed mimeograph stationery—to say nothing of the plain paper used. And from the volume of new members joining the Society's ranks we can assume that we will use much more during the coming year.

And speaking about new members, fifty-five names have been added during the past ten months since our splendid Minneapolis convention up to April first. By the time this convention is over this figure will doubtless be boosted. Of this number thirty-two were never members before and twenty-three were reinstatements. This is in excess of the gain made a year ago.

Today our membership is made up of fifty-six per cent terminal grain elevators, six and six-tenths per cent sub-terminals, twenty-three and two-tenths per cent in the milling elevators divided; flour thirteen per cent; feed eight and four-tenths per cent, and cereal one and eight-tenths per cent. Maltsters comprise five and four-tenths per cent, soybean processors four per cent, corn refiners two and four-tenths per cent, linseed processors one and eight-tenths per cent, with the remaining six-tenths per cent divided among other branches of the grain processing industry.

Chapter activity has been progressing very well, and further strides are looked for during the coming year. Committee activity should improve as pressure increases, and it probably will. All in all we can rightfully anticipate an outstanding year to come.

Finances improved as well. \$2,231.63 came in for the twelve months ending February 28th, 1942, and \$2,700.63 for the thirteen months ending March 31, 1942. As you will remember from past conventions, convention dates have a bearing on dues payments, thus the odd period is given. Expenditures totaled \$2,104.66 for the year, or \$126.97 less than our income. For the thirteen months period expenditures totaled \$2,412.91 or \$287.72 less than our income. Here's hoping all the figures will treble during the coming year—and they will if each member will do his part.

J. L. WELSH, Omaha, vice-pres., Grain & Feed Dealers Nat'l Ass'n, brought a message from his ass'n, saying in part: You have the largest supply of foodstuffs under your power, and you should fully realize the responsibility which is yours. There is one way which you superintendents can be of inestimable help in furthering the war effort and that is by keeping box cars moving, loading them to the limit, get them moving, and when cars come to your elevator for unloading do the job quickly and get them moving. Keeping these cars moving keeps them in service and doing a greater job.

The Grain & Feed Dealers Nat'l Ass'n is the outstanding organization in the grain trade. We have a representative in Washington, Ray Bowden, who keeps in close contact with government officials and knows what is going on. He is the best EAR we have ever had in Washington. If your organization ever



Paul H. Christensen, Minneapolis, gen'l supt. Van Dusen-Harrington Co., retiring president.



Gilbert Lane, Chicago, president-elect.

has a problem in which you need assistance we hope you will make use of the facilities of the National Ass'n.

Mr. Welsh called attention to the need for greater storage and expressed the opinion it would be found.

C. R. McCOTTER, Grain Dealers Nat'l Mutual Fire Ins. Co., Omaha, read a paper on Wartime Protection, which will be published in a later number.

SGT. LEROY BESLER, Omaha Police Dept., as a member of the Subversive Bureau, was well prepared to talk on Sabotage. He explained the Omaha plan to counteract subversive activities, sabotage and plant protection. This plan consists of a system of plant surveys, in cooperation with their officials, and covering the vital parts, personnel and suggestions for their improvement from this angle, and including lighting facilities, fencing, watchmen or guard service, investigation of the personnel and numerous other phases for the protection of the plant. Sgt. Besler said: Whether an industrial unit has been destroyed by intention or neglect is immaterial, the important thing is the loss of the plant to the war effort. Consequently any material, machine, equipment or product of a utility without which a plant cannot operate, is to be considered a vulnerable point for sabotage, and should be given particular attention.

ARTHUR McKINLEY, vice-pres., Omaha Elevator Co., in his talk on War Time Loading and Shipping, said: War time loading and shipping requirements are of vital interest to all of us. We had some experience handling last year's crop, but no matter how good your performance last season, it is not good enough for this season, and the next. As you are aware, the 1941 rail tonnage was a record. There will be much more in 1942, and still more in 1943. A large tonnage has been diverted from trucks and water and that will increase as time goes on. This is a war of production, a war of movement. To us who are especially concerned with the nation's traffic, war of movement has a special meaning. Millions of dollars, tons, man-hours, go into America's production. It takes one thing more to make that production worthwhile. It takes movement—transportation.

This means making every freight car do more work. Cars should be loaded to the maximum capacity, ordered promptly, quickly unloaded and loaded. It means re-examination of past methods for coordination and cooperation on the part of every elevator.

The ICC and the ODT have expressed their gratification at performances up to date. We cannot relax for a moment. We must be more alert, expense alone is not sufficient justification for delays. There are various ways of forcing heavier loading and quicker handling, as you are aware, but they prefer cooperation, and expect to get it, in full measure. Penalties are the last resort.

Everything at the present time is subordinate to winning this war. Your superintendents have a big responsibility in seeing that your cars are handled promptly and efficiently, and I know you will not leave it to others, or put it off.

Thursday Afternoon Session

2d VICE-PRES. R. B. POW, Fort William, was in the chair for this session.

FRANK FOGARTY, Omaha Chamber of Commerce, discussed The Value of Getting Together, saying: The value of getting together is extremely important. There is no substitute for it. I have found usually the best things you get out of a convention is the exchange of ideas. We have to put something into our profession for something we have taken out. That applies in every line of business. One of the best and most valuable things in a convention of this kind is listening to the various speakers, listening to new ideas from all parts of the country. Your Society is your am-

bassador of good will. The only way to solve the mass of problems which will arise following the war is to put our heads together, working together and getting together. It is a matter of team work.

DR. L. M. CHRISTENSEN, Nebraska Chemurgy Project, in his address on Chemurgy in Grain, said: Agriculture is profoundly affected by the war program, more so than in previous wars. We must find new uses for our present crops and develop new crops which have not previously been produced in this country. The soybean because of its many uses has become one of the most important crops.

Dr. Christensen discussed the progress being made in the production of synthetic rubber, stating there is enough grain material to increase the supply of this rubber if the ethyl alcohol method is used.

ROUND TABLE DISCUSSION

Each year this round table discussion takes on greater importance, and the superintendents now come prepared to enter into it with greater interest showing a desire to give and take information which will aid them in the more efficient operation of their elevators.

PRES. CHRISTENSEN started the ball rolling by asking what, if any, substitute had been found for spout lining.

ROBERT LAND, Omaha Elevator Co., Council Bluffs: We have made a prefabricated concrete lining for our worn spouts, reinforcing them with old cleaner screens. They are from one to three inches thick and are fastened to the spout with a bolt, a hole for which had been provided in the pouring of the concrete. We use a three to one aggregate. This lining reduces the capacity somewhat. A spout so lined has been in use in our elevator for five years and shows no sign of wear.

VINCENT SHEA, Van Dusen-Harrington Co., Minneapolis: High abrasive steel stands twice the wear of carbon steel, and the cost is not much higher, however, it is hard to work. We have used it for spouts.

MR. LANE: We have a number of V-belt drives in our plant, and it being impracticable to carry a large stock of these belts I am wondering what we will do for replacements. The life of a belt is from 8 to 10 years, and on some of our drives we will soon need replacements.

GROVER MEYER, Kansas City Power & Light Co.; If the drive is properly designed the belt will last long through the war, even though it, the war, lasts several years. These drives are a matter of design as much as material.

C. A. McIVER, ass't supt. of elevators, Archer-Daniels-Midland Co., Minneapolis: There is now on the market a V-belt drive not made of rubber, which is sold in reels. With this you can assemble your own drive.

H. T. McKAY, Westinghouse Electric & Mfg. Co., Chicago: The manufacturers of grain elevator equipment are doing a fine job keeping your elevators supplied with equipment, and I am sure any of them will be glad to assist you in whatever mechanical problems you may have. Our company has recently issued two loose leaf booklets on maintenance which would be of

great help to you. They can be obtained by writing Dept. 7-N, at our Pittsburgh, Pa. office. Each of these booklets contain information which you can use every day.

LEWIS INKS, Quaker Oats Co., Akron, O.: Has there been any research on acidity in corn, and its effect on the keeping quality of the grain?

H. L. HEINRICKSON, Terminal Grain Corp., Sioux City: Acidity in corn or unevenly loaded cars shows by the jumping of the needle on the electric tester. Corn of this character should be specially binned or disposed of as quickly as possible.

H. C. BRAND, Quaker Oats Co., Cedar Rapids: What would be the safe limit on fat acidity? In my opinion anything above 30 is high for safety. It takes a day to determine the fat acidity factor, then it is not a true picture.

OSCAR OLSEN, Peavey-Duluth Terminal, Duluth: It has been our experience that tests from different laboratories will show different results on corn from the same lot.

JACK COUGHLIN, Brooks Elevator, Minneapolis: We were offered corn for storage which showed an acidity test of over 23 and we refused to accept it.

DR. CHRISTENSEN: Acidity has somewhat the same effect as moisture.

PRES. CHRISTENSEN: There is a place and an urgent need in every corn handling elevator for an appliance to make an acidity test quickly.

MR. LANE proposed a motion, which was later adopted, that a Society Committee be appointed to investigate methods quickly to determine the acidity in corn.

MR. SHEA: Is there any authoritative information that sick wheat affects its baking quality? What causes sick wheat in the Northwest?

QUESTION—How can we prolong the life of cables on the car pullers.

MR. POW: Reduce the load.

HAROLD WILBER, A. E. Staley Mfg. Co., Decatur, Ill.: We dope our cables with hot gear compound. We have built a trough, into which the compound is poured, we then pull the cable through. This hot compound penetrates the cable. It's a messy job, but it does add life to the cable, in fact we have a cable at our plant which has been in continuous use for 15 years.

MR. McIVER's explanation of how they rearranged a car puller at one of their elevators, not only to increase the life of the cable but to get greater efficiency from the puller, may be the answer to other super's problems. It is published elsewhere.

JAMES M. DOTY, Omaha, read a paper on The Role of Cereals in Nutrition, he discussed the different vitamins and the vitamin content of various wheats. He prophesied that research may bring out the necessity of selecting wheat on its vitamin content.

MR. COUGHLIN's interesting talk on Salvage contains much information that should prove of value to superintendents, when they are faced with the handling of salvage following a fire. It is published elsewhere.

MR. WILBER read a paper on Discrepancies

New Society Officers and Directors



L. to R.: R. B. Pow, Fort William, 1st Vice-Pres., and H. C. Brand, Cedar Rapids, 2d Vice-Pres.; Jack Coughlin, Minneapolis; Ralph Garber, Enid; Jack Smith, Sarnia, Ont., directors.

in Moisture Tests which is published elsewhere in this number.

MR. LANE in an address urging closer relationship between management and employee said: I think we should ostracise the word "boss." There is no room in industry for that word or any of its principals as they have been known in the past. We have since found that you can lead men so much farther than you can drive them. This new principal becomes more important than ever before because jobs are so much more plentiful than men, and the demand for the available supply of labor is great. Much more dependence must be placed upon winning willing cooperation than upon hard-boiled "take-it-or-leave-it" attitude. A supervisor who knows how to lead men invariably is a good teacher. Good teaching consists of getting men to understand what you are talking about and what you expect of them, how you want it done and why.

LEONARD DANIELSON, gen'l foreman, Arcady Farms Mfg. Co., Chicago, read a paper on Static which will be published later.

GROVER MEYER, again defended his belief that static is not the dust-explosion factor it is thought to be. (*Grain & Feed Journals*, page 338, Oct. 22, 1941.)

FRIDAY MORNING: With few exceptions the delegates and their wives journeyed to Boys Town, Nebr., the site of the famous home for boys, developed by Father Flanagan. The visitors were divided into groups and each group, with a "citizen" as a guide toured the extensive grounds and buildings, inspected the work shops and other facilities and came away firm in the belief that the good padre is right in his statement that "there is no such thing as a bad boy."

Friday Afternoon Session

After the satisfaction of an appetite whetted by the brisk air of the rolling countryside of Boys Town, Pres. Christensen called this session to order.

WILLIAM McDONALD, Rosenbaum Bros., Chicago, another manager who has long been a friend of the Society, was presented, and said: I assure you it is a pleasure to be here to meet with you again, and I want again to reiterate what I have said before, that our objective is accomplishment and I trust you are thinking along the same line; of what a tremendous task we have before us. We are now at war, and we must consider carefully our industry and the shipping transportation problem. It is quite important that we see that cars are loaded with dispatch so that a greater number of miles will be accomplished. It is necessary to key ourselves to the present situation and to see that our efforts are maintained to the highest degree.

FRANK THEIS, pres. Simonds-Shields-Theis Grain Co., Kansas City, a loyal supporter of the Society, gave an inspiring talk on the Relationship of the Front Office and the Superintendent, saying: This relationship must be one of absolute unity of purpose, perfect team work, constant cooperation; loyalty on the part of the superintendent and understanding on the part of the front office. I know of no group in our industry which is serving it better than is this Society.

Mr. Theis also discussed the recent Kansas City meeting of the Wells Storage and Transportation Committee, advising that a system of permits for movement of the 1942 wheat crop in the Southwest, was recommended. This system provides that railroads would not furnish cars for grain unless space was available at terminal markets to unload them. Such a permit system offers the only way to avoid a tie-up of cars.

T. C. MANNING, Uhlmann Grain Co., Kansas City, discussed The Foreman as Leader or Driver.

MAJOR GENERAL F. E. UHL, U. S. Army, in his talk on preparedness stated that the largest single item in the U. S. Army today, as in previous wars, is bread, not rice

"and Americans are determined now more than ever, not to become involuntary rice eaters." He praised the superintendents for their efforts to eliminate grain dust explosions and fire hazards.

R. B. POW, with his customary clear insight, analyzed the current position of terminal elevator storage, and peeped into the future. His "Where Do We Stand Today?" will appear in a later number.

B. N. KILBOURN, OPM, Omaha, in his talk on Priorities, after explaining that order P100 covered repairs, maintenance and operating supplies, and order PB200 was for new construction, expressed the hope that those present, in order to keep the priority system working smoothly report any unfair practices.

VINCENT SHEA reported on Chapter Activities, explaining the procedure followed in keeping alive the aims and aspirations of the Society, by monthly meeting of the various Chapters.

CHARLES WALKER, A-D-M Co., Omaha, in his talk, What the Society Means to Us, forcibly brought out just how the Society, and attendance at its Chapter and annual meetings, can be of great help not only to the superintendent but to the manager as well.

JERRY LACY, Westcentral Coop. Grain Co., Omaha, in his paper, Electrical Aids, which will be published later, proved the worth of these Society meetings for the exchange of ideas in the operation and maintenance of the grain elevator.

ROBERT LAND, Omaha Elevator Co., Omaha, in discussing The Drying of Grain, said: In our experience the drying of grain is dependent upon a number of factors, among them the climate, humidity, time of year, grade, whether grain is to be shipped or stored, and the make of the drier. In this locality we find drying easier in late fall and early winter when the temperature is at the freezing point and humidity normal. However, the variations in our temperature and grade of grain gauge the amount of heat and time of drying.

There has been considerable discussion as to the proper drying of grain to be stored. I believe that grain dried for indefinite storage must be dried considerably lower than grain shipped or turned in a short time. Grain which contains over 20% moisture and dried for storage, will invariably cause trouble by getting out of condition, even with all the other factors normal, unless mixed with a lower moisture grain going to the drier.

Grain dried in early fall will, of course, not have a temperature below 50 degrees. I believe the best results are obtained by waiting until freezing weather, and running the grain through the drier without heat. Making a mixture of 25% to 50% of this grain against the other dried grain and rebinning. This method raises the keeping quality to a safe degree and also avoids re-handling which is dangerous with any dried grain.

Much discussion, was given the cooling of grain after going through the drier, one superintendent expressing the opinion that the cooling capacity of driers be doubled so as to cool thoroughly before it is stored, to prevent re-heating.

MR. MANNING suggested that grain dried could be stored for a few days then again put through the drier without heat, the entire drier being used as a cooler. It was his belief that corn handled in this manner would keep indefinitely.

EMIL BUELENS, Glidden Co., Chicago, discussed War Time Plant Protection, and presented a well planned system which he recommended for the proper protection of grain elevators and allied buildings.

CHARLES GROSSMAN, Scoular-Bishop Grain Co., Omaha, read a paper on Dual Grading which is published in this number.

Saturday Morning Session

PRES. CHRISTENSEN was in the chair again for this, the Safety Session.

H. L. HEINRICKSON read a paper on Venting for Safety which is published elsewhere in this number.

H. C. BRAND, an ardent champion of safety, and one who puts his preachments into practice with gratifying results, read a paper on Safety Around the Plant which will be published in a later number.

OSCAR OLSEN pulls no punches when he talks about the safety program of the Society which was instituted five years ago. In the absence of Clarence Turning, sec'y, Safety Committee, Mr. Olsen read his report which follows:

REPORT OF SAFETY COMMITTEE

The reason for conducting safety contests, (a) There was no organized safety campaign carried on in our industry.

(b) The number of accidents was great, and the severity was serious.

(c) It was felt that contests, with suitable awards for the winners, at our annual convention, would increase the interest in safety.

The results of these contests can be summarized by giving you the totals for the four full years when these contests were conducted: (The first contest being only for a six month period).

Contest Number	Year ending	Man hours worked	Number of lost time accidents	Frequency Rate	Severity Rate
5	2-28-42	2,493,925	44	17.64	2.75
1	2-28-41	1,493,040	16	10.71	0.21
3	2-29-40	1,056,277	23	21.78	0.73
2	2-28-39	1,198,100	18	15.01	0.49

It is a lost time accident if the man is injured so severely that he is unable to return to work for his next scheduled shift. The frequency rate represents the number of lost time accidents per million man hours worked. The severity rate means the number of lost time days per 1000 man hours worked.

The record of the plants entered in our contests over a period of years, compares very well with the National average reported by the National Safety Council; but we fear that the average for our industry as a whole is not as good as it should be. Therefore, we urge greater safety efforts, and participation by all Superintendents in our next contest for the year beginning Mar. 1, 1942.

There were 28 plants entered in our last contest (No. 5), of these 11 had no lost time accidents during the year. In 1941 we had the misfortune to experience one fatality, and one other serious accident resulting in the amputation of a toe. The balance of the 44 accidents were all very minor. This resulted in a greater severity rate than experienced before.

The value of these records, from our Safety Contests, is increasing, as we receive a greater

Omaha Hustlers



L. to R.: Charles Walker, Herbert Sales, John Goetzinger and Jerry Lacy.

number of entries. They will soon represent an accurate cross section of the experience of our industry. In 1940 we had only 19 plants entered, and of these 10 had a clear record. During the past contest, we had 28 entries, and I hope that we can have at least 50 for the next one.

GRAND PRIZE: The Superior Elevator Co., Ltd., Port Arthur, Ontario, has been entered in every one of the 5 safety contests sponsored by your Society. While other plants have made very good safety records, this is the only plant entered in all 5 of the contests, that has had no lost time accident during the entire period of 4½ years.

Therefore, your Safety Committee feels that this plant should be given special recognition at this time.

We recently wrote Mr. F. J. McLean, Supt. to get some additional information about his operations, and their safety efforts and I quote the following from his reply:

"Our elevator is the usual terminal grain elevator type-unloading, cleaning, drying, storing, etc. with the exception that we operate grinding (Hammer Mill) crimping and groating machines and do a big seasonal business in sacked grain.

It is the policy of our firm to carefully select new employees and if found satisfactory, make every effort to keep them. From the safety point of view this has worked to advantage. The majority of the employees are 'old timers' although we have the seasonal run of new men and the usual replacements.

Safety is a personal matter between the foreman and the individual worker, and is followed through closely. One thing is clearly understood—the man known to be careless will surely be dismissed.

The material on safety which you have sent to us has been a big help and is appreciated. Coupled with the interest aroused by the safety contests, it has helped to put the safety idea over; and gives it an interesting touch.

Our present efforts on safety and our last lost time accident date from October, 1935. During the fall of that year, we had a run of accidents and as we were in the midst of a grain rush, loss of experienced men through accidents, caused us no end of trouble. That started our safety campaign as we knew it, and it gave us great pleasure and help when we had the opportunity of entering the SOGES contests. We are fortunate in having a foreman and his assistant have a liking, a very keen interest in the work, and it means that the pressure is never relaxed."

During the 5 contests starting, Sept. 1, 1937 and ending 2-28-42 this plant has worked 152,499 man hours, without a single lost time accident.

AWARDS IN CURRENT CONTEST: The cups for the current safety contest were purchased by the SOGES and they will be awarded to all the plants entered in the last contest, running from Mar. 1, 1941 to Feb. 28, 1942, who had no lost time accidents during this 12 month period.

The awards will be made in the order of man hours worked, the first plant having the largest number of man hours during this 12 month period.

	Man Hours
1. Ralston Purina Co., Kansas City, Mo.	192,209
2. Quaker Oats Co., Cedar Rapids, Iowa	88,667
3. Peavey Terminal Elevator, Duluth, Minn.	78,548
4. Occident Terminal Elevator, Duluth, Minn.	56,747
5. Quaker Oats Co., Akron, Ohio.....	51,908
6. Brooks Elevator Corp., Minneapolis	46,452
7. Van-Dusen-Harrington Co. Republic Elevator, Minneapolis, Minn.....	39,353
8. Rosenbaum Bros., Omaha, Neb.	24,542
9. Farmers Union Grain Terminal, Superior, Wis.	24,025
10. Van-Dusen-Harrington Co. Crescent Elevator, Minneapolis, Minn.	21,911

Your Committee feels that this annual safety contest is an effort that is securing results. We already have a number of entries for the 6th Contest, and solicit your support for this contest and urge every Superintendent to enter. The fee is only \$5.00 for each plant entered. Help conserve life and limb, and keep up the interest in Accident Prevention by entering this contest at once. Send your entry to Dean M. Clark, Sec'y, 1011 Board of Trade Building, Chicago.

R. E. WALTER, Nebr. Power Co., Omaha, outlined the safety plan of his company and gave the superintendents many excellent ideas which can be used to advantage in the promotion of greater safety in their elevators.

GLENN H. LEDIOYT, Nebraska Grain Improvement Ass'n, Lincoln, outlined the work of his ass'n in his talk on Grain Improvement which is published elsewhere in this number.

K. S. QUISENBERRY, USDA, Lincoln, read a paper on New Varieties of Wheat which is published elsewhere.

WALTER TEPPEN, Occident Elevator, Duluth, read the report of the Auditing Committee which was approved. In addition this committee complimented Sec'y Clark on his handling of the finances of the Society and for his foresight in making purchases of supplies.

MR. POW for the Resolutions Committee presented resolutions of thanks to the various agencies and committees who were responsible for the success of the convention; special thanks to Harry Clark and the Omaha Committees and to the officers of the Society. Adopted.

The Nominating Committee report was read by Mr. Olsen, and suggested the election of the following: Pres., Gilbert Lane; 1st Vice-Pres., R. B. Pow; 2d Vice-Pres., H. C. Brand. Directors for three years: Jack Coughlin; R. E. Garber, Enid (Okla.) Elevator Corp.; P. A. Kier, Standard Mfg. Co., Kansas City; Fred Sibbald, Grand Trunk Elevator, Fort William; Jack Smith, Sarnia (Ont.) Elevator Co. All unanimously elected.

SATURDAY AFTERNOON the conventioners were guests of the Omaha Grain Exchange at a buffet luncheon, served on the trading floor of the exchange.

Following the luncheon, under the sponsorship of the Grain Exchange Laboratories, a milling and baking demonstration was given. This demonstration included samples of various wheats, flour milled from them and finally bread from the flour.

The Associates Night

The social hour, entertainment and dance given the men and their ladies through the courtesy of the Associate Members, together with the banquet, provided a gala ending to three busy days.

Grover Meyer, permanent chairman of this annual affair, was master of ceremonies. With the flags of the United States and Canada in full breeze on the stage at the end of the banquet hall, R. B. Pow paid glowing tribute to both and in calling attention to the fact that both contained the same colors, also explained the similarity in the meaning of these colors in the two flags. Following this tribute he led the audience in singing God Save The King. This was followed by a toast to the President and the singing of America.

Frank (Slim) Carlson, Occident Terminal Elevator, Duluth, made the presentation of awards to the winners in the Safety Contest. Cups were awarded to the following:

Superior Elevator Co., Ltd., Port Arthur, which has had no lost time accident in any of the five contests, having worked 152,499 man hours, was awarded the Day Company silver cup for this splendid achievement.

Society cups were awarded to: Ralston Purina Co., Kansas City; Quaker Oats Co., Cedar Rapids; Peavey Terminal, Duluth; Occident Terminal, Duluth; Quaker Oats Co., Akron, O.; Brooks Elevator Co., Minneapolis; Republic Elevator, Minneapolis; Rosenbaum Bros., Omaha; Farmers Union Grain Terminal, Superior, Wis.; Crescent Elevator, Minneapolis.

Convention Notes

Frank Blodgett did the honors for Weevil Cide Co.

A. B. (Yankee Farmer) Osgood and C. A. McElevey dispensed Day Co. literature and matches.

The Minary Table showing shrinkage costs of drying grain was displayed on the registration desk.

R. R. Howell Co., was represented by Harold Olson and Ed. Mueller.

Genial Hy Arendall and his associates Harry Hansen and Ward Combs were hosts in the Larvacide suite where Virginia ham and beverages were freely dispensed. Various souvenirs were handed out.

H. T. McKay, baffled his friends with the Westinghouse disappearing dot card.

Congratulatory letters and telegrams were read from past-presidents E. H. Karp and Percy Oulton, from Jim Shaw the Fort William-Port Arthur Chapter.

Hon. H. M. Paterson, Fort William; Harry Clark, Chief Inspector at Omaha and Wirt D. Walker, Arcady Farms Milling Co. were elected to the exclusive circle of honorary members.

The telephone gang was again at work. It is doubtful if its instigators will enjoy much rest at future conventions.

Grain elevator builders present included Tom Ryan, Ryan Construction Co.; J. H. Tillotson; F. R. St. Lawrence.

V. L. Oliver represented the Superior Separator Co.; Henry Richardson and Alfred Richards the Richardson Scale Co.

Visiting superintendents were: James Auld and C. C. Bach, Minneapolis; E. A. Buelens, Chicago; P. J. Bohan, Minneapolis; H. C. Brand, Cedar Rapids; Gordon Clark, Sioux City; P. H. Christensen, Minneapolis; F. E. Carlson, Duluth; O. B. Duncan, Kansas City; L. J. Danielson, Chicago; Henry Foth, Abilene, Kans.; B. E. Friel, Waseca, Minn.; L. R. Ginn, Wichita; W. H. Gassler, Chicago; R. E. Garber, Enid, Okla.; J. S. Graves, Duluth; W. S. Holte and H. A. Hantz, Kansas City; E. R. Hapke, Gibson City, Ill.; C. E. Hackleman, Galveston; H. L. Heinrickson, Sioux City; R. M. Johnson, S. Duluth; Lewis Inks, Akron, O.; Fred Keeney, Portsmouth, Va.; W. H. Kamp and P. A. Kler, Kansas City; W. D. Loney, Fort William; G. P. Lane, Chicago; C. V. Larkin, Des Moines; R. M. Laye, Nebr. City, Nebr.; T. C. Manning, and H. B. Madison, Kansas City; C. A. Melver, Minneapolis; O. W. Olsen, Duluth; R. B. Pow, Fort William; E. J. Raether, Minneapolis; Cliff Steiner, Decatur, Ill.; V. A. Shea, Minneapolis; W. H. Teppen, Duluth; J. L. Widstrom, Minneapolis; E. W. White, Fremont, Nebr.; Harold Wilber, Decatur, Ill.

EXHIBITS: Vic Reid and H. H. Van Ornum were in charge of the Hart-Carter Co. exhibit, and passed out literature and the ever present note book.

P. W. Burrows and J. C. Kintz had the Seed-buro Equipment Co. which included its extensive line of testing and grading equipment. Much interest was manifested in the Steinlite Moisture Tester which was in operation throughout the convention. Book matches were the souvenirs.

Screw Conveyor Co., exhibited Nu-Hy grain and flour buckets. Russ Maas and P. F. McAllister made it easy to locate the war zones with the pocket atlases they handed out. The beautiful corsages worn by each lady at the banquet bore the Screw Conveyor Co. card.

Visiting ladies included Mesdames: Guy Anderson, Minneapolis; H. C. Brand, Cedar Rapids; Patrick Bohan, Minneapolis; P. H. Christensen, Minneapolis; J. R. Coughlin, Minneapolis; F. E. Carlson, Duluth; Dean M. Clark, Chicago; L. R. Ginn, Wichita; H. Heinrickson, Sioux City; W. H. Kamp, Kansas City; C. A. Melver, Minneapolis; T. C. Manning, Kansas City; O. W. Olsen, Duluth; A. B. Osgood, Minneapolis; R. B. Pow, Fort William; E. J. Raether, Minneapolis; W. H. Teppen, Duluth. Misses Nancy Christensen and Jean Groottem, Minneapolis.

With the Superintendents at Boys Town



L. to R.: Vic Reid, Ed Raether, C. A. McElevey, Minneapolis; H. L. Heinrickson, Sioux City; A. Super; Charles Walker, Omaha; Slim Carlson, Duluth; Paul H. Christensen, Minneapolis.

Prolonging the Life of Cables

By C. A. McIVER, Ass't Superintendent of Elevators, Archer-Daniels-Midland Co., before Society of Grain Elevator Superintendents.

At one of our Minneapolis elevators we had, for several years, encountered serious trouble with a car-puller which was so abusive to cables that their life usually was only from two to four months. The car puller was installed under the track and the lead from the sheave to the drum was short and at right angles to the direction of the track. The short lead caused the cable to climb and pile against one side of the drum, and on several occasions resulted in cracking the flange of the drum.

In order to overcome our troubles we overhauled our car puller last year and swung the steel base and the complete installation 90 degrees. It was also elevated closer to the track shed floor and anchored to a reinforced concrete foundation. The cable now reels onto the drum parallel to the direction of the track, whereas it formerly made a sharp 90 degree bend over the lead sheave, it now makes only a slight bend at an angle of about 150 degrees from the horizontal plane.

The new sheave is keyed to a shaft which turns in bronze-bushed bearings mounted just beneath the floor. The shaft slides freely from one end to the other and helps the cable to levelwind more evenly on the drum. With the drum closer to the floor we installed an inspection hole, protected by a grating, which permits the operator to watch the cable on the drum at all times. The gear ratio of the drive has also been revised so that now the cable reels up on the drum at a rate of only about 65 feet per minute. These changes have resulted in smoother operation and much longer life to the cable.

Oklahoma Co-operatives Hear Plea for Farm Storage

The Oklahoma Farmers Cooperative Grain Dealers Ass'n held its 26th annual convention at the Hotel Youngblood, Enid, Thursday and Friday, Apr. 9-10. The meeting followed by a day a meeting of the Oklahoma Wheat Growers Protective Ass'n, held in the same city.

At the business session, Paul Peeler, white-haired Elk City grain dealer, was re-elected president for the 20th consecutive year. Roy Bender, Enid, was continued as sec'y for the 14th year. G. C. Hollis, Hinton, was re-elected vice-president. Re-elected to the board of directors were Hollis, and H. H. Pereboom of Imo. C. L. Atherton, Red Rock, was replaced on the board by Walter Plumer, Kildale.

The fast moving program, designed to accommodate train and bus schedules, opened at 1:15 p. m., Apr. 9. Subjects for discussion covered a variety of grain problems. Leaping into prominence this year were rain, greenbugs, storage facilities, and transportation.

DR. W. E. GRIMES, Manhattan, Kan., head of the department on economics at Kansas State University, spoke on "Cooperation During and Following Wars."

J. E. Wells, Jr., Washington, D. C., special assistant to the Sec'y of Agriculture, attracted most attention as a speaker, because of his double purpose mission, one of which was to address the convention delegates, the other to conduct a special session of all grain interests to develop plans for solving the Southwestern wheat storage problem.

Wells said: "The railroads assure us they have plenty of box cars this year, but that we cannot use them for storage. If the present indicated acreages and yields materialize, more grain will have to be stored on farms."

"Farmers can build 1,000 bu. bins for as little as 12c a bu. and 1,000 farmers, each storing 1,000 bu., means 1,000,000 bu. of wheat stored."

The speaker said 80% of the storage capacity of mid-western elevators is already oc-

cupied, which represents an increase of 20% in wheat carry-over above last year. Little prospect is evident of relieving pressure at country points by shipments to terminals, and by terminal shipments to export points. Wartime increase in demand for rail facilities and the growing shortage of labor and materials is helping neither the storage nor the transportation problems. Demand for troop transport made upon the rails may interfere with the free movement of wheat during harvest. Farmers would do well to plan for home storage, and to cut their wheat only when it is dry to eliminate complicating the problem by attempting to store wet grain.

Other convention speakers were H. C. Stephens, vice president and treasurer of the Wichita Bank for Cooperatives, on "Cooperative Management Problems Now"; Howard A. Cowden, president of the Consumers Cooperative Ass'n, North Kansas City, who studied cooperatives in a war economy; Dr. Eugene S. Briggs, president of Phillips University, and Leo Greer, Nash, master of ceremonies at the banquet.

Elevator Salvage

By JACK COUGHLIN, Supt., Brooks Elevator, before Society of Grain Elevator Superintendents

No matter what precautions are taken it does not seem possible all elevator fires and dust explosions can be prevented. However, hand in hand with the rapidly advancing fire precautions the elevator superintendents can take a major part in minimizing the loss from the fires that do occur. Elevator superintendents are or should be interested in low insurance rates. One way of keeping them low is by preventing maximum loss to the grain after a fire.

It would be impossible to discuss the procedure followed in actually salvaging a loss. The conditions of no two fires are alike and only very general rules can be maintained even by those who have had long experience in the salvage jobs, and these are susceptible to more exceptions than rules. Of course, some part of the grain is actually consumed by the fire, the remainder is damaged by debris, exposure and especially by water. We have found that we get much better salvage and it bushels out better in country fires where there is no water, or the water supply is limited. Grain itself does not burn unless there is a strong draft or wind to fan it.

Elevator superintendents who are confronted with a fire can best diminish the loss by doing all they can to see that only enough water absolutely necessary to control the fire is used.

Intelligent cooperation between the fire department and the salvage operator can prevent the pouring on of thousands of gallons of superfluous and damaging water. Remember within reasonable limits the less water the better for handling the fire and the less the loss from water damage.

If you are a superintendent for a salvaging company you are faced with the job of drying, cleaning and conditioning the grain. This end of the job is no less important than the salvaging operation itself, and the better it is done the higher price the processed salvage will bring when it moves into the ordinary channels for feed.

As all know, fire-burnt grain is unfit for human consumption, so it goes into the cattle or stock food. The more money the salvage brings the less loss to the insurance company, and this in turn goes back to your insurance rates. So, these three different steps: an intelligent job of fire control by the fire department; secondly, the operation of an experienced salvage crew, and thirdly, the job of efficiently processing the salvage grain for the market. When the optimum of all three are found co-active with the best fire preventive methods losses from these disasters will drop and insurance rates will follow.

Government to Support Bean Prices

A plan under which three commercial classes of 1941 crop dry edible beans may be purchased, either in relatively small quantities or in carlots, by the Agricultural Marketing Administration directly from growers, associations of growers, or their agents, at announced prices, was announced Apr. 18 by the Department of Agriculture.

The new purchase plan is designed to provide a temporary market for growers in areas where the production of beans is not a major enterprise but where there may be local surpluses due to expanded production in 1941.

Purchases of 1941 crop beans during the period covered by the plan, will be made on the basis of a maximum price of \$5 per hundredweight for pea and medium white, Great Northern and small white beans grading U.S. No. 1, for \$4.85 per hundredweight for the same classes of U.S. No. 2 dry beans, in bags, Eastern seaboard basis. The AMA will buy beans offered in noncommercial producing areas thru its authorized purchasing agents. The agents will determine the price to be paid for dry beans that have not been cleaned or otherwise processed equivalent to U.S. No. 1 or U.S. No. 2 grade, with due allowance for transportation, handling, bagging, processing and other costs.

The new plan will supplement the price support purchase program for 1941 crop dry beans which has operated weekly since May 6, 1941, in the major producing areas on an offer and acceptance basis. The closing date of the price support program has been extended from May 1, 1942, to June 15, 1942, because of the unusually large quantities of beans containing excess moisture in some producing areas and the order restricting the use of tin for canning dry beans.

Carlot purchases will include three additional classes of beans—light red kidney, dark red kidney, and Western red kidney—in order to help producers dispose of large stocks of these beans that would normally be taken by canneries if there were no restrictions on tin.

It is probable that this plan will operate largely in the North Central States—from Michigan to Eastern Nebraska.

Washington News

The War Production Board Apr. 12 ordered all production of medium and heavy trucks for civilian use discontinued after existing quotas have been completed.

Office of Defense Transportation and other government agencies are reported to have devised a plan for pooling of warehouse facilities and to simplify relations between warehousing companies and government agencies. Proposed is the setting up of emergency warehouse ass'ns made up of public elevator operators, and merchandising warehousemen in distribution centers thru-out the country.

Transfer to Kansas and other wheat states of part of the Commodity Credit Corp.'s steel storage bins now located in the corn belt was urged by Rep. Clifford R. Hope in a letter recently to J. B. Hutson, president of the corporation. "If we can get 25 to 30 million bushels of additional storage capacity in the southwest in the shape of these steel bins it will relieve the situation immensely," he wrote.

An order prohibits, except in strictly limited categories, the initiation of all new civilian building and cancels the implicit authority to initiate construction contained in preference ratings previously assigned to deliveries of materials on PD-1 or PD-1A forms, and by certain General Preference Rating Orders of the "P" series. New residential, farm and commercial construction must be authorized in advance.

Grain and Feed Trade News

Reports of new elevators, feed mills, improvements; changes in firms; fires, casualties, accidents and deaths are solicited.

CALIFORNIA

Westmorland, Cal.—Ray Crawford is now with the Johnson Hay & Grain Co.

Clovis, Cal.—Glenn F. Sheets of Fresno recently bought the Clovis Feed Mill, operated for several months by the Dresser Bros., and has taken possession.

Lincoln, Cal.—Jansen & Son are building an elevator on their warehouse property. The bins, of approximately 140,000 bus. capacity, will be 18 ft. in diameter and 60 ft. high.

Sacramento, Cal.—The California Hay, Grain & Feed Dealers Ass'n is meeting here Apr. 23-25, at the Biltmore Hotel. W. J. Cecil, director, state department of agriculture, is the guest speaker at the convention, his talk covering last minute data on "War and California Agriculture." He will give the latest information on burlap bags and bulk handling of the coming crop. Ben C. Duniway, regional attorney, O.P.A., San Francisco, will speak on price order, forms required, reports required, from the feed industry. Priority order, forms required, reports required for the feed industry will be discussed by a priority specialist from the W. P. B. Los Angeles office. Specific questions will be collected before and at the meeting, to be answered by the speakers. This feature of the program will be of special interest and value to members of the ass'n. C. O. Atchinson, ass't branch mgr., Wages-Hours, will present official reply and opinions on the "Typical Operations of a Combination Feed Business." There will be the annual convention banquet the evening of Apr. 24, with radio artists entertaining. Golf and bowling tournaments will be enjoyed the afternoon of Apr. 23, with plenty of prizes to be awarded winners. A special attraction of the evening of Apr. 23 is an educational color film: "The Story of Economic Poisons," completed by Dr. Alvin J. Cox, chief, Bureau of Chemistry, and his staff. I. J. Strommes is sec'y-treas. of the ass'n.

CANADA

Winnipeg, Man.—V. W. Tryon, president of the North-West Line Elevators Ass'n, has announced the appointment of Cecil Lamont as vice-pres. of the organization.

Lindsay, Ont.—A grain elevator owned by Hogg & Lytle at Mariposa Station near here, burned recently. The building was filled with wheat, barley and pea seed, graded and cleaned, and ready for use of farmers over a wide area of eastern Ontario in seeding operations. The loss of the seed was estimated at about \$100,000, the total loss about \$125,000.

COLORADO

Cortez, Colo.—The Wark Milling Co. is increasing its storage capacity by construction of a crib type elevator, 38x26 ft., 50 ft. high. Will Wark is manager.

Arvada, Colo.—The Farmer's Feed & Supply Co. has moved to new quarters on Grandview Ave. H. Kelley, manager, stated his new place is able to give customers better and faster service.

ILLINOIS

Hoopeston, Ill.—The Egnew Chevrolet Sales has added a complete line of McMillen Master Mix Feeds.

Henkel (Mendota p. o.), Ill.—Guy Parks of Dover, Ill., is new manager of the Henkel Grain Co. elevator.

Winchester, Ill.—The Chrisman & Sturdy Grain Co. elevator sustained a small loss, recently, from high winds.

Mt. Carmel, Ill.—Mrs. Fred Noller has taken over the Economy Feed Mill which she will operate under the name, Noller Feed Co.

Big Foot (Harvard p. o.), Ill.—Rufus Young, manager of the Big Foot feed mill, has purchased the Big Foot church for feed storage.

Morton, Ill.—The Hauter Grain & Coal Co. has installed a Steinlite Moisture Tester, which will enable them to render better service to their many customers.

Metcalf, Ill.—Clark Stanbery, manager of Cleveland Grain Co. elevator, has been notified his son, Ensign Merl B., 22, has been commissioned a navy pilot.

Beardstown, Ill.—John Schultz, employed by Schultz, Baujan & Co., has enlisted in the navy; Robert J. White, also of the company's staff, will serve in the army.

Harvey, Ill.—Henry Waldschmidt has purchased Henry Heideman's interest in the Colerick Coal & Feed Co., ending a partnership in the business of 17 years.

Assumption, Ill.—Karl Hight, manager of the Central Illinois Feed & Chick Shop, suffered a broken arm recently when a corn cracker he was helping unload fell on him.

Bristow, Ill.—A jury gave judgment Apr. 3 for \$238.50 to John Weichers and Carl Schrage against Bert Pooley for two loads of corn delivered to the elevator in excess of the number credited.

Nokomis, Ill.—The Nokomis Equity Elevator Co., which does business in grains and soybeans in addition to its regular line of merchandising, reports a year's business of \$142,782.23.—P. J. P.

Alvin, Ill.—George L. Merritt has sold his elevator operated for 20 years under his name, to Frank E. Yeazel. Mr. Yeazel has been busy repairing the elevator, which was damaged by the recent tornado, and will be ready for business soon.

Springfield, Ill.—The Wolaver Livestock Service Co. has completed construction of a feed mill for the manufacture of Vetrat concentrates and mineral feeds. The new building is located at the stock yards.

Peoria, Ill.—The Norris Grain Co. was the successful bidder for the Burlington elevator of 900,000 bus. capacity and the Riverside elevator of 125,000 bus., both sold by the Farm Credit Administration recently. The Norris company will take over title upon the expiration of the present leases on the elevators at the close of the crop year.

Westervelt, Ill.—Consideration of plans for replacing its elevator which was destroyed by fire recently is held in abeyance by Spencer Kellogg & Sons, Inc., W. L. Shellabarger of Decatur, official of the company, announced. A second elevator operated here by the company remains in operation and for the present will handle all of the company's business.

McHenry, Ill.—The grand opening of the Farmers Mill was held the afternoon of Apr. 11. John A. Bolger, manager, awarded many prizes to guests and served punch, cookies, candy and cigars to all visitors. The large modern structure replaces the mill that burned last August. In the evening of opening day, the McHenry County Farmers Co-op. Ass'n entertained at a dance at The Bridge.

Cairo, Ill.—The Cairo River & Warehouse Co. has purchased the old Sutherland Flour Mills Co. The old Hastings-Stout elevator property close by the Sutherland Flour Mills property is being purchased by Harry Lind and A. T. Madra, connected with the operation of Cairo River & Warehouse Co. Mr. Lind said there is a possibility that a soybean oil plant would be operated in the flour mill and elevator property, altho no definite decision has been made.

Rowell (Maroa p. o.), Ill.—R. E. Bowers, former owner of the local elevator, is made defendant in a \$2,500 damage suit filed in Macon County circuit court by Ray McGrath, who bot the elevator from Bowers. McGrath alleges that when he purchased the elevator the defendant promised to repair a concrete bin and has failed to do so. By his failure to keep his agreement, the plaintiff alleges Bowers has caused him to be damaged by reason of the breach of agreement and asks the court for \$2,500 damages.

CHICAGO NOTES

Walter T. Rice has been admitted to general partnership in Daniel F. Rice & Co.

John F. Milota, 57, grain sampler, for 20 years employed by the state grain inspection department, died Apr. 10 of a heart attack.

Faroll Bros., stock and grain brokerage house, has moved to 208 South LaSalle St. from the Board of Trade Bldg. Their former quarters have been taken over by the Navy.

Charles D. Prescott, 61, a member of the Board of Trade for over 30 years, died Apr. 9 in his home at 1810 North Newcastle Ave. He had been connected with the firm of James Kidston & Co. for 48 years.

We are indebted to Fred H. Clutton, sec'y of the Chicago Board of Trade, for a copy of the recently issued annual report of the trade and commerce of the Board for the year ended Dec. 31, 1941. Statistics for the issue were compiled by Lyman C. West, statistician. The book is a complete brochure of all interesting and informative facts relating to the Board and its activities during the year.

Beware!

Notwithstanding we have frequently warned our readers of the sharp practices of unauthorized subscription solicitors, a number of swindlers using different names, but having no certificate of authority from us, continue to collect money for the Journals without ever being in our employ or having authority to represent us in any capacity. Calling on grain dealers, they always know that your subscription has expired and urge an immediate renewal for a long term. Your bank should credit your account with all forged checks and return them to the agency presenting them for payment. Any information which will assist in stopping the swindling practices of these sharpers will be most gratefully received.

Grain & Feed Journals

CONSOLIDATED

CHARLES S. CLARK, Mgr.

Gladwin A. Read has been appointed manager of the feed department of the International Minerals and Chemical Corp. He formerly was poultry specialist with the Pioneer Hatchery, Petaluma, Cal., later operated a unit of the W. R. Hearst ranch, San Simeon, Cal., and more recently has represented the Borden Co., New York, N. Y.

The directors of the Board of Trade have instructed that in the event of an air raid the bell on the Exchange floor will be rung five times; all trading will immediately cease, lights will be extinguished, and telephone service will be suspended; the following notice will be sent on our quotation ticker "Air raid alarm. Market closed temporarily." When the "all clear" is sounded 15 minutes will be allowed for members to return from refuge zones to the trading floor. Fifteen minutes after the "all clear" has sounded, the bell on the Exchange floor will sound and trading may be resumed provided that this time is not later than the regular close of the market. Ticker service will be resumed with the notification "all clear on the air raid has been sounded and trading has been resumed."

INDIANA

Martinsville, Ind.—The Martinsville Mfg. Co. is installing a new batch feed mixer in its mill.—H. H. H.

Hamlet, Ind.—Additional grain storage bins are contemplated by the Hamlet Grain & Feed Co. this season.—A. E. L.

Kimmell, Ind.—The Stiefel Grain Co. has installed a one-ton capacity Kelly Duplex Vertical Feed Mixer with motor drive.

Keystone, Ind.—The Hoosier Grain & Supply Co. has installed a new one-ton feed mixer and repainted its plant.—A. E. L.

Brookville, Ind.—The feed and fertilizer plant of the late Clinton E. Grist is being operated by Alfred E. Hyde, purchaser of the plant.

Arcadia, Ind.—The Farmers Co-operative Co. is replacing attrition mills at Cicero and Arcadia with new hammer mills.—A. E. L.

Tocsin, Ind.—The Tocsin Lumber & Grain Co. will install a new larger hammer mill and move its feed mill to a new location.—A. E. L.

Kewanna, Ind.—H. S. Button of Pine Village is new manager of the Standard Elvtr. Co. elevator, succeeding Wendell W. Pugh, resigned.

Aurora, Ind.—Aylor & Meyer Co., with elevators here and at Rising Sun, recently enrolled as members of the Indiana Grain Dealers Ass'n.

Stone Station (Winchester R. F. D. 2), Ind.—Elery Norris purchased the grocery store here and is operating it in conjunction with the Stone Station Elevator.—A. E. L.

Sweetser, Ind.—The Martin Grain Co. has repainted its entire plant and installed three Hartford rolling doors; making a very attractive appearance.—A. E. L.

St. Joe, Ind.—The flour mill owned by Roscoe Walters, known as St. Joe Flour Mill, has been leased by the Auburn Grain Co. H. G. Hoham is manager.—A. E. L.

West Middleton, Ind.—The Howard County Farm Bureau is modernizing its plant with new high cupola, new elevator legs, drags and truck hoist and new paint.—A. E. L.

Hobbs, Ind.—F. M. Ackels built a warehouse on the west side of the elevator and is now building a new feed mill on east side of the plant. Power will consist of two Cummins Diesel engines.—A. E. L.

Speicher (Wabash R. F. D.), Ind.—The Wabash County Farm Bureau has completed a 16 x 24 ft. cob house with hopper bottom. A new cleaner and elevator boot will be installed also.—A. E. L.

Indianapolis, Ind.—A. O. DeLeuse of the Lew Hill Grain Co. and Frank Fitzgerald of the Grain Dealers National Mutual Fire Insurance Co. joined the Army Air Corps, and will soon be chasing the Japs.

Shelbyville, Ind.—When the tornado recently swept thru the community Walter Beck, proprietor of the Beck elevator, narrowly escaped injury when a 20-ft. chimney crashed thru his office during the storm.

Lafayette, Ind.—Pay for farm workers is going up rather sharply, but will be below what they received during the first world war, according to Miner M. Justin, agricultural statistician at Purdue University.—W. B. C.

Indianapolis, Ind.—"Bob" McConnell, a former grain commission man in the local market, and treasurer of the Indiana Grain Dealers Ass'n for several years, suffered a heart attack recently at his home in Detroit. It is hoped he will recover his health by a complete rest.

Taylorville, Ind.—Frank B. Richards will build an addition to his elevator in which will be installed a new Blue Streak Grinder and Feed Mixer. He reports that his retail trade west of the elevator will be greatly reduced by the building of an army camp in the vicinity.

Evansville, Ind.—L. M. Vogier, Indiana chairman of the A.A.A., says that fewer than 1,500 Indiana farmers, who have exceeded wheat allotments for the 1942 crop, will have excess wheat to store if marketing quotas are approved by the nation's wheat growers May 2.—W. B. C.

Southport, Ind.—Robert Mayo on Mar. 20 filed suit against the Farmers Co-op. Co., claiming back wages under the Wages & Hour Act. An effort will be made to delay this case until a decision has been rendered by the court of Hamilton County on the Vance vs. Markleville Elvtr. Co. case. Any member of the Indiana Grain Dealers Ass'n against whom a wage-hour suit has or may be filed, is advised to notify Sec'y Fred Sale of the facts, the ass'n being in a position to materially assist them in the conduct of such cases.

The tenth annual grain schools have just been completed in Indiana. These schools are made possible by the close cooperation of the Federal Grain Supervision, the Indiana Grain Dealers Ass'n with the Agronomy Dept., School of Agriculture, Purdue University. Prof. F. E. Robbins, of the Agronomy Dept., was in charge of the instructional work. He was assisted in this work by Willis B. Combs, Senior Marketing Specialist, U. S. D. A., Chicago; Tom Hughes, Grain Supervisor, Chicago; C. A. Russell, Grain Supervisor, Indianapolis; L. F. Butler, Grain Supervisor, Cincinnati; J. W. Wesson, Grain Supervisor, Louisville; and Chester Goodge, Licensed Inspector, Evansville. Appearing on the program at one or more of the schools were Dr. G. H. Cutler, Plant Breeder, Purdue, who discussed new varieties and their adaptations; Prof. C. E. Skiver, Agronomy Dept., Purdue, who talked on Cultural Practices as Affecting Commercial Grades; Prof. I. D. Mayer, Agricultural Engineering Dept., Purdue, who discussed Storage Problems; and Clarence Henry, Education Committee, Board of Trade, Chicago, who discussed the Grain Situation and the War.

Indianapolis, Ind.—A clever forger, operating on a large scale thruout Indiana and 16 other states, is victimizing many elevator operators as well as other business men. He has facilities to print checks of any character he desires, some are fictitious feed, commission or dairy firms, others, individuals, and in many instances safety paper is used. Recently he is said to have been arrested for drunken driving and released in Georgia when his woman companion put up \$200 bond. Both left the state and were next heard of in Indiana. One license plate number used by the criminal is C26880, issued in Georgia this year. The FBI is after him, and all state police are on the alert for him. Should any suspicious person or stranger attempt to pass a check on elevator operators anywhere, they are urged to contact their local police at once.

IOWA

Farragut, Ia.—The Farmers Co-operative Co. is installing a new 40-ton scale with 10 x 45 ft. deck.

Arlington, Ia.—R. W. Johnson is making plans to rebuild his elevator that burned recently.

Percival, Ia.—The new addition to the south of the A. B. Wilson Grain Co. elevator is being rushed to completion.

Lakota, Ia.—The J. P. Schissel & Son elevator was entered by prowlers recently but nothing of value was taken.

Onawa, Ia.—A. D. Post, manager of the Farmers Elevator for the last 31 years, has resigned, effective June 1.

Ledyard, Ia.—The Farmers Co-op. and Garry Grain Co. elevators were entered by prowlers recently, but nothing was taken.

Tabor, Ia.—The Schroeder Elevator is constructing coal sheds and will handle coal in addition to its lines of grain and feed.

Grundy Center, Ia.—William Beckman, 47, feed salesman, was arrested and arraigned recently, charged with the theft of car plates.

Exira, Ia.—The Exira Elevator, operated by R. L. Miller, was robbed the night of Mar. 26. The safe was broken open but only a few dollars in small change was found. Officers working on the case have found no clues.—Exira Elevator.

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Badger, Ia.—The Farmers Elevtr. Co. has been changed to a co-operative organization, to be known as the Badger Co-operative Elevtr. Co.

Indianola, Ia.—E. H. Felton of the E. H. Felton Grain Co. recently announced he is a candidate for the Republican nomination for state representative.

Alleman, Ia.—Joe Smay is new manager of the Farmers Elevator, succeeding Carl Booher who accepted a position with the Bruntlett Grain Co. at Gowrie.—A. G. T.

Schleswig, Ia.—C. J. Claussen has resigned as manager of the Farmers Lumber & Grain Co. after 33 years' service, and has been succeeded by his son, C. H. Claussen.

Aurelia, Ia.—A. J. Frazier, operator of the A. Frazier Elevator, is remodeling a building in which he will conduct a feed business. Feed mixing equipment is being installed.

Lake Park, Ia.—Fire starting under the office of the C. E. Arnold Grain & Livestock Co. elevator recently damaged the office, part of the bins and a quantity of flax seed.

Des Moines, Ia.—L. J. Brady, president of the Brady Motor Co., has formed a company, Brady's, for wholesale and retail distribution of livestock and poultry feeds and pet foods. Office and warehouse will be maintained at the motor company location.

Dougherty, Ia.—John Caspers of Rockwell is now plant superintendent of the Tyden Feed Mfg. plant, succeeding Ray Hogan, who was called to military service. G. H. Cook, general manager of the concern, will move his family from Greene to Dougherty.

Des Moines, Ia.—Howe, Inc., has been formed to handle wholesale distribution of livestock feeds and supplies and flour. Offices, warehouse and display rooms will be located on Cherry St. Paul Manning is president; R. E. Williams, sec'y; Paul Groom, mgr.

Cedar Rapids, Ia.—The Hrdlicka Products Co., manufacturers of a yeast feed for livestock and poultry, is completing a 2-story, semi-fire-proof building. The plant makes two tons of the finished product daily, but facilities have been provided to double the capacity. Grain bins are being planned for.

Pocahontas, Ia.—George W. Butt has remodeled the former location of the New York Hdw. Co. adjoining his garage and has embarked in the feed business to offset the loss of business occasioned by tire rationing and the discontinuance of automobile manufacturing. The new business will operate as the George Butt Feed Co.

Graettinger, Ia.—The new Quaker Oats elevator is practically completed. The elevator has been in operation for some time, but there was delay in getting the corrugated metal sheathing for the outside of the building and it was necessary to use regular board siding. This part of the contract is being completed now. The T. E. Ibberson Co. had the contract.

Ralston, Ia.—The checks recently stolen from the Farmers Elevtr. Co. and the A. Moorhouse Co. elevators were found in a money sack in a roadside ditch about 8½ miles south of Carroll on Highway 71 and turned over to Sheriff Finegan of Carroll. A steel punch found near the safe of an Exira elevator that had been forced open the same night of the local burglaries, is the only other clew found by officers. No money was taken at Exira.

Plum Creek (Algona p. o.), Ia.—The Plum Creek Elevtr. Co.'s elevator and its contents of 3,000 bus. of sealed shelled corn and a small quantity of small grain were destroyed by fire early Apr. 9. The loss, covered by insurance, was estimated at \$10,000. The 50 year old elevator, a frame building covered with corrugated iron, was a flaming mass when firemen arrived. Adjoining sheds and coal shelters were saved. Leslie Huff, manager, and H. J. Bode own controlling interest in the elevator company.

Kalona, Ia.—The Bender & Marner Co. feed mill was destroyed by fire at a loss estimated at \$12,000. The loss included a quantity of corn and oats and a diesel engine. No insurance was carried.—A. G. T.

KANSAS

Hillsdale, Kan.—Frank Coburn is the new manager of the Fessenden Grain Co. elevator.

Wichita, Kan.—O. J. Gabbert, superintendent of the Kansas Milling Co., resigned, effective May 1.

Gretna, Kan.—Allen Adey has leased the local elevator and will operate it during the crop season.

Belleville, Kan.—The Hinnen Feed Co. has opened for business here with Homer Hinnen of Holton in charge.

Hutchinson, Kan.—George Leshure, manager of the Davidson Grain Co. elevator for 15 years, has moved his family here.

Halstead, Kan.—The Farmers Co-op. Grain & Mercantile Co. elevator was slightly damaged by recent high winds.

Clafin, Kan.—The Central Kansas Mill & Elevtr. Co. plant was damaged by recent high winds. The loss was small.

Manhattan, Kan.—The Manhattan Milling Co. plant sustained a small amount of damage as the result of recent high winds.

Hanover, Kan.—Ignatz Masat, 69, elevator and milling man here for nearly 40 years, died, recently, after having suffered a paralytic stroke.

Ottawa, Kan.—The Ross Milling Co. is building a 2-story building on its premises that will accommodate the mill office, laboratory and testing kitchen.

Varner, Kan.—J. Reynolds is the new manager of the Collingwood Grain Co. elevator, succeeding Harold McClure who has entered the U. S. service.

Topeka, Kan.—Charles Newell, civil service director, has announced merit examinations for nine classified positions in the state grain inspection department.—P. J. P.

Cairo (Cunningham p. o.), Kan.—Brient Hartesty has taken over the management of the Cairo Co-op. Equity Exchange elevator located on the Claude Barker land about two miles west of here. The elevator was built last year to replace a smaller structure and is owned by farmers of the community.

Hutchinson, Kan.—The Consolidated Flour Mills Co. is building a warehouse for grain and feed storage, to be in two sections, 55x40 ft. and 20x40 ft., brick, one story.

Parsons, Kan.—The Farmers Elevator has been reorganized and Albert Poole, member of the organization, has been named manager, succeeding Gerald Simmons, resigned.

Harveyville, Kan.—Harold Grissinger has been placed in charge of the grain and feed at the elevator, taking the place of Enos Fouts, who has been called to U. S. service.

Woodston, Kan.—Orville Livingston is new manager of the Robinson Elevator, succeeding N. H. Crandall, who is now manager of the E. C. Wyatt Grain Co. at Hunter, Kan.

Cherryvale, Kan.—C. S. McGinness, formerly manager of the N. Sauer Milling Co., resigned as mayor following the closing of the mill and his subsequent employment at Carthage, Mo.

Garfield, Kan.—W. A. Barger has purchased the Prather elevator from Mrs. Gertrude Prather and plans to double its capacity. He will store his grain in the elevator and lease about half of it.

Brewster, Kan.—The Coffey-Larrick Grain Co. has erected a modern tile and stucco office building and installed a new print-o-matic type Fairbanks Scale. Clarke Osborn had charge of the construction.

Herndon, Kan.—A new 30-ton scale has been installed at the Beaver Valley Roller Mills Co. mill. It is planned to increase the storage capacity 10,000 bus. by construction of another addition to the plant.

Penalosa, Kan.—The Kansas Milling Co. is repairing its elevator, building an office and installing a new scale and making other improvements at the plant. J. L. Woolridge is manager of the elevator.

Ellsworth, Kan.—The Farmers Elevator recently constructed an addition atop its feed warehouse, the new structure housing elevating equipment and storage bins. The Ernest Engineering Co. did the work.

Dodge City, Kan.—It is expected that of the 20 million bushels of farm loan wheat in Kansas that loans will not be extended on more than 25 per cent, leaving approximately 15 million bushels on which the C.C.C. will take title at the termination of the loan Apr. 30, the Kansas Grain, Feed & Seed Dealers Ass'n said in a recent bulletin.

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Emporia, Kan.—New machinery is being installed at the Kansas Soybean Mills which will triple the capacity of the plant, Phil Lord, a member of the firm, recently announced. Included are two 8-ton oil expeller machines.

Dodge City, Kan.—The Dodge City Co-operative Exchange is installing a 45 ft. 40-ton scale. Improvements under way at the elevator where the office and warehouse are being remodeled are expected to be completed by the middle of May.

Lindsborg, Kan.—Harry Highley has opened the Sunflower Poultry & Feed Store in the same building that housed his former business, the Highley Motor Co. Coffee and doughnuts were served free to all visitors on opening day.

Hunter, Kan.—N. H. Crandall is taking over the management of the E. C. Wyatt Grain Co. elevator here. Mr. Sherrill, who has been here many years, is retiring. Mr. Crandall was manager of the Robinson Elevator at Woodston for 12 years.

Cherryvale, Kan.—Henry Bergman, a trustee for the bondholders who recently purchased the Sauer Milling Co. mill, stated they will not attempt to operate the mill. It is hoped a group of citizens will be found who will form a company to operate the plant.

Stockton, Kan.—John E. Rogers, 69, in the grain business here for the past 12 years, died Apr. 16 of a heart attack. Mr. Rogers had been in the grain business for forty years, operating elevators at Salina, Quinter, Glasco and Hays, Kan., and Stratton, Colo.—P. J. P.

Whitewater, Kan.—The town's 13th annual feeders' day program held recently attracted 500 stockmen and others to the special program arranged for their benefit. L. E. Zimmerman, manager of the Whitewater Flour Mills Co., was toastmaster at the banquet that climaxed the day's festivities; Ted Zimmerman, sales manager of the mill, was program chairman.

Phillipsburg, Kan.—Harry Blackwill, manager of the Phillips County Grain Co. elevator, at the cost of \$1.35 and with a little ingenuity, has fixed up a seed-testing outfit, built to approved state board of agriculture specifications, and is ready to test grain for his customers. The grain company recently sponsored a poultry clinic with H. G. West, graduate of the Salesburg Poultry school, in charge.

Dodge City, Kan.—The program for the Kansas Grain, Feed & Seed Dealers Ass'n convention May 11 and 12 has been completed. There will be a line of noted speakers who will talk on subjects that are not only of great interest to the grain and feed trade, Sec'y J. F. Moyer stated, but of vital importance. The convention headquarters will be at the Lora Locke Hotel. Plans are being made to accommodate an unusually large attendance.

Hutchinson, Kan.—The Farmers Co-operative Commission Co. is adding a million-bu. annex to its elevator at First and Halstead Sts. The addition will increase the company's local storage capacity to 2,500,000 bus., and will increase Hutchinson's public grain storage capacity to 13,390,000 bus., and private and public storage to 15,345,000 bus. Chalmers & Borton have the contract. Clyde Morton, manager, stated the addition will cost in excess of \$100,000. The company has priorities in the required structural steel and other materials, he said. The new structure, which is to be completed before harvest, will include 22 main tanks of 35,000 bus. capacity each and 38 smaller tanks of from 4,000 to 11,000 bus. each.

Gorham, Kan.—We will increase the capacity of our elevator by 5,000 bus. before the coming crop. We are installing a 40x10 ft., 30-ton Printomatic Fairbanks Scale.—Farmers Grain & Merc. Co., F. E. Nowak, mgr.

Cherryvale, Kan.—George Taaffe, receiver for the N. Sauer Milling Co., was allowed \$2,200 by Judge J. W. Holdren, Independence, for approximately one year's service. Taaffe had previously filed a bill for \$5,000 as compensation for his work.—P. J. P.

Sublette, Kan.—The McCoy Grain Co. is planning to build a 65,000-bu. addition to its elevator. Part of the new storage structure will be of concrete block construction. Fred Vance, who has been managing the Cave elevator at Vanceville, has succeeded W. O. Kelman as manager of the local elevator. Mr. Kelman resigned to return to farming.

KENTUCKY

Benton, Ky.—The Paul Cross Mill, which has been closed for some time, will not open until the fall, Mr. Cross stated.

MICHIGAN

Elkton, Mich.—Wallace & Morley Co. reported a small amount of damage done at its elevator recently by high winds.

Rothbury, Mich.—Peter Engemann is building a one-story concrete building to replace his feed store that burned last fall.

Sparta, Mich.—The Wilson & Son Elevator recently bot from Flack-Pennell Co. two Saginaw 1-ton Feed Mixers and a seed treater.

Detroit, Mich.—The A. K. Zinn & Co. warehouse on Dix Ave., was badly damaged by fire Apr. 6. A portion of the structure, saved from the blaze, is being used. Repairs will be made at once on the building.

Hillsdale, Mich.—Harold F. Stock, sec'y-treas. of the F. W. Stock & Sons since 1920, was named pres. to succeed his father, the late Alexander Stock who died recently. His ascendency marks the third generation to head the firm since its founding in the 60's.

North Branch, Mich.—The Harper Elevator was destroyed by fire Apr. 18. A passerby, noticing the fire, telephoned a report of the blaze, but the telephone operator stated that use of the siren was forbidden, and the delay occasioned in telephoning separately each of the volunteer firemen allowed the fire to gain such headway it could not be controlled.

Lapeer, Mich.—Roy Townsend, partner in the Lapeer Grain Co., has purchased the holdings of Walter W. Nowak in that corporation. Mr. Nowak is retiring because of ill health after 36 years in the milling business. Before he and Mr. Townsend purchased controlling interest in the Lapeer Grain Co. in 1939, Mr. Nowak was a member of the Nowak Milling Co., makers of Domino feeds, with large plants in Hammond, Ind., and Buffalo, N. Y. Thurlow Pierce will continue as manager of the local elevator.

Lansing, Mich.—A survey covering all Michigan grain storage facilities, including idle plants that could readily be placed in operation but excluding storage space on farms, was made as of Feb. 16, 1942, the information gathered by representatives of the A. A. A., and the tabulation of the reports handled by the Michigan Co-operative Crop Reporting Service. Practically a complete census was obtained, which shows a rated bulk storage capacity of 14,396,000 bus., a sacked capacity of 4,140,000 bus., and corn-crib space of 101,000 bus.—a total of 18,637,000 bus.

MINNESOTA

Appleton, Minn.—The Farmers Co-op. Elvtr. Co. plans to move its west elevator.

South Hibbing, Minn.—The Hibbing Produce Co. reported a small property loss caused by recent high winds.

Coates (Rich Valley p. o), Minn.—A flax fiber mill containing 10 tons of fiber was destroyed by fire Apr. 9.

Madison, Minn.—The Madison Grain Co. will build a 30x32 ft., 50 ft. high storage elevator on the right of way east of its present elevator.

North Branch, Minn.—The Hilltop Farm Feed Store has installed a new feed mill, doubling the store's grinding capacity. Reuben Erickson is operator of the business.

Luverne, Minn.—At the annual meeting of the Tri-State Mutual Grain Dealers Ins. Co. here, E. A. Brown, Luverne, was re-elected pres.; W. J. Shanard, Bridgewater, S. D., v.-pres.; John Barton, Sioux Falls, treas.; E. H. Moreland, Luverne, sec'y.

DULUTH LETTER

R. G. Sims, injured in an automobile accident a month ago, visits his office for a time daily.—F. G. C.

Elevator X owned by the Great Northern R. R., destroyed by fire last January, is still smoldering.—F. G. C.

C. F. Macdonald, sec'y of the Duluth Board of Trade, is ill in a local hospital, but his condition is not considered serious.—F. G. C.

Ice conditions tied up a large fleet of steamers at Whitefish Bay, eastern end of Lake Superior and only recently were boats able to break through the jam to reach open water and make port. The situation is now improved and vessels are arriving and departing with regularity. Bulk of the arrivals are taking on iron ore, only a few being under charter to report for grain. The light out-loading of grain has opened up some storage room in the elevators, but nothing like the trade would like to see. Elevators still hold 42,000,000 bus., a decrease of about 2,000,000 bus. of the peak reached several weeks ago, so that little encouragement can be offered grain shippers seeking elevator accommodations.—F. G. C.

MINNEAPOLIS LETTER

Minneapolis, Minn.—R. L. Newsome, Newsome Commission Co., has announced that his brother, Richard H., soon will be associated with him in the feed brokerage business.

Henry J. Moreton, 82, for more than 40 years a prominent figure in Minneapolis grain circles, died at his home on Apr. 16. For many years Mr. Moreton was local representative of Stratton Grain Co., Chicago.

At the annual meeting of the Minneapolis Grain Shippers Ass'n A. J. Larsen of Hallet & Carey was elected pres.; L. L. Crosby of Cargill, Inc., v.-pres.; and H. W. Abraham of the Victoria Elvtr. Co., sec'y-treas.

Minneapolis, Minn.—The Archer-Daniels-Midland Co. was the successful bidder for the 2,300,000-bu. Soo Elevator, sold by the Farm Credit Administration recently. The new owner, who has been operating the elevator under lease, will take formal title to the structure July 31, the date of expiration of the lease. The elevator came into the possession of the F. C. A. when the defunct Farmers National Grain Corp. discontinued operations.



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MISSOURI

Russellville, Mo.—The Russellville Farmers Shipping Ass'n plant was damaged by an exploding fire recently.

Clinton, Mo.—Owen Dandliker, a salesman for the Larabee Mills, has been transferred to Springfield, Mo.—P.J.P.

Flat River, Mo.—The Giessing Milling Co. recently opened a feed store here with Hasca Smith of Farmington as manager.

Aurora, Mo.—A small fire occurred at the Majestic Flour Mill recently, early discovery of the blaze preventing much loss.

Mexico, Mo.—The W. W. Pollock Milling & Elevator Co. reported a small amount of damage at its plant as the result of recent high winds.

Auxvasse, Mo.—Ernest S. Oliver of Fulton has rented the elevator on the Alton Railroad right of way and is using the building for storage of corn.

Pleasant Hill, Mo.—Willis Pureau has been appointed manager in charge of mixed feeds and merchandising of coarse grains at the Moundridge Milling Co. plant.

Seneca, Mo.—John H. Wilkinson, a grain broker, has filed as a candidate for the Republican nomination for State Senator from the Eighteenth District of Missouri.—P.J.P.

Louisiana, Mo.—Clem Green, who was connected with the weighing department of the Missouri State Grain & Warehouse Department, has resigned and returned to Curryville, Mo.—P.J.P.

St. Joseph, Mo.—Mr. and Mrs. J. C. Engel of this city have announced the engagement of their daughter, Mary Ellen Engel, to Dwight L. Dannen, vice-president of the Dannen Grain & Milling Co.—P.J.P.

Monroe City, Mo.—A. L. Nash, 63, in the grain and feed business here for many years, died Apr. 6, at Dayton, O. He was seriously injured in an automobile accident March 1, near Dayton.—P. J. P.

St. Louis, Mo.—Jack Stearns, formerly manager of the grain department at the Kansas Flour Mill Corp. mill, is now office manager of the Valier & Spies Milling Co., a branch of the Kansas Flour Mills Co.

St. Joseph, Mo.—Ralph P. McNerngney of Kansas City, former inspector in charge of the St. Joseph office of the Missouri State Grain Inspection Department, is rapidly recovering from a three months' illness.—P. J. P.

Springfield, Mo.—The Eisenmayer Milling Co. mill has been purchased by the Majestic Mill at Aurora, Mo., and will be used as a warehouse, its elevator used as needed. The sale is a preliminary to the liquidation of the Eisenmayer Milling Co.

Columbia, Mo.—The total grain storage capacity in commercial facilities in Missouri Feb. 16 was 76,033,483 bus., or nearly 200,000 bus. more than last year. Of this amount, 71,633,000 bus. were classed as bulk, 3,810,000 bus. as sacked, and 590,000 bus. as crib space. All space was filled except 10,200,000 bus.—P. J. P.

Louisiana, Mo.—The Missouri-Illinois Co-operative Elevator Ass'n has been taken over by the Missouri Farmers' Ass'n Co-operative and is in charge of Wilbur Stone of Moberly. Auditors have been here this week auditing the books. F. A. Curry, who had been with the old company for three years, is with the new organization.—P.J.P.

St. Joseph, Mo.—Two employees of the Missouri State Grain Inspection office have changed positions in the move that has given the Republicans control of that office. H. C. Van Houten, who has been assistant inspector in charge, has taken over the inspector position held by Raymond Pollard. The latter, a Democrat, is to remain in the office and take over the position held for the last ten months by Van Houten, a Republican.—P. J. P.

KANSAS CITY LETTER

James W. Ringwald, former manager of Cargill, Inc., local office, advises friends he is about to receive his commission as lieutenant, senior grade, in the naval reserve.

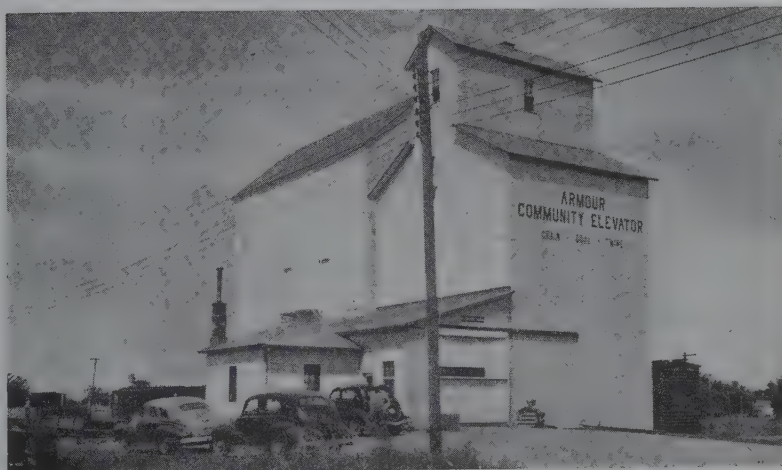
Kansas City, Mo.—The Kansas City Feed Club held its last monthly meeting of the season the evening of Apr. 14 at Hotel Phillips when plans were discussed for a golf tournament and outing for the members' next gathering.

The fifth annual local grain grading school will be held May 31. Sponsors are the Kansas City Board of Trade, Department of Agriculture, Missouri and Kansas state grain inspection departments, and extension services of Kansas State College and the University of Missouri.

Francis J. FitzPatrick, vice-pres. of the Simonds-Shields-Theis Grain Co., has been appointed a captain in the U. S. Army Air Corps, and has reported for duty at the training school of the Army air force at Miami Beach, Fla. Capt. FitzPatrick is a director of the Kansas City Board of Trade.

Members of the Kansas City Board of Trade recently approved all proposed amendments to the rules except one that would impose a transfer fee on memberships of deceased members. The proposals approved include upward revisions in commission charges on futures trades on grain and mill-feeds; increasing the unit of trading in millfeeds and permitting deliveries of millfeeds in used burlap, used cotton and in new paper bags under certain conditions.—P. J. P.

A com'ite composed of Warren Root, chairman, E. E. Klecan and H. A. Merrill has been appointed by Pres. Gunnard A. Johnson of the Kansas City Board of Trade to investigate and report on the advisability of suspending the exchange rule permitting track deliveries of grain during the last three days of a futures contract month. The advisability of trading in "old" and "new" style futures to protect holders of previous contracts also will be studied. Trading in the "old" contracts would be only for the purpose of liquidation while the "new" contracts would not permit track deliveries.



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MONTANA

Buffalo, Mont.—Torvald Michael Reimers, 65, well known manager of the International elevator for the past 25 years, died Apr. 12.

Billings, Mont.—H. L. Walrath of Bridger has purchased the Thomson Bean Co. and assumed operation of the plant. He plans to make extensive improvements at the elevator and warehouse. The business will be known as the H. L. Walrath Bean Co. Mr. Walrath has been connected for several years with E. A. Walrath & Sons, with plants at Bridger and in northern Wyoming.

NEBRASKA

Alliance, Neb.—George Neuswanger sustained an electrical damage loss occurring in his East elevator recently.

Indianola, Neb.—The old flour mill formerly operated by the late Scott Deane, built in the early 80's, is being razed.

Cedar Rapids, Neb.—Fred Radje, Columbus, has leased the Vanderheiden & Cox elevator and will take charge soon.

Crawford, Neb.—John P. Quirk has bought an interest in the Hagemeister elevator, the firm name now Hagemeister & Quirk.

Manley, Neb.—Herman Arents of Talmage is new manager of the Manley Grain Co., elevator, succeeding Harry Hawsnew who has gone to Kansas.

Benkelman, Neb.—The Independent Elevators owned and operated by E. F. Ham, have enlarged the main elevator. An upstairs addition was added providing room for 5,000 sacks and bulk storage.

Eustis, Neb.—A. W. Miller of Farnam has been employed by the Morrison-Gregg-Mitchell Grain Co. of Kansas City to manage the former C. B. Seldomridge Grain Co. elevator, succeeding W. A. Harding.

Lincoln, Neb.—L. H. Fairchild, for 10 years associated with Allied Mills, Inc., at Omaha, in the poultry and livestock feed department, is now affiliated with the Hill Feed Co., in charge of the firm's new feed department.

St. Paul, Neb.—The St. Paul Co-op. Grain Ass'n has been organized; capital stock, \$10,000; directors: Albert L. Rasmussen, N. J. Paul, Henry Obermiller, Kenneth Rohman, Thorvald, J. J. Jacobsen, J. R. Jones, of St. Paul, and Henry Platek, Farwell.

Central City, Neb.—A soybean meeting was held in the court house Apr. 13 when Pete Marr, owner of the Fremont soybean mill, presented facts gleaned from his personal experience in raising and handling soybeans. He answered questions of many in his audience at conclusion of the program.

Peru, Neb.—H. T. Stiles, manager of the Hart-Bartlett-Sturtevant Grain Co. elevator suffered the loss of his right eye thru a ruptured blood vessel. He was operated on at Auburn Hospital. It will be some time before he can resume his duties at the elevator. In the meantime his associate, Lloyd Cotton, is in charge.

Omaha, Neb.—The Nebraska Grain Dealers Ass'n is planning for a large attendance at its annual convention here Apr. 26 and 27. A cordial invitation was extended to all grain men, whether members of the ass'n or not, to attend the session as problems of paramount interest and importance to the grain trade will be discussed in detail by experienced grain men and government representatives. Headquarters will be at the Hotel Fontenelle.

Omaha, Neb.—Representatives of the department of agriculture, grain trade and transportation agencies will meet here Apr. 22 to discuss storage of the new crop. Anticipating a shortage of storage space, this is one of 11 meetings held this month in western cities to discuss the problem of caring for the coming grain crop. Less opportunity exists this year than for many years past for relieving storage pressure at country points because facilities at terminals and sea ports already are filled.

Omaha, Neb.—Family size farms were discussed by Oscar Heline, Marcus, president of the Farmers Grain Dealers Ass'n of Iowa, at the western policy com'te institute here recently. "Family size farms are what you make them," Heline declared. "I am not so much concerned with the disparity between agriculture's income and the income of industry and labor as I am with the disparity between the incomes of groups within agriculture. While some of the big operators in agriculture are paying income taxes on \$16,000 and \$18,000, the average American farmer receives an income of only \$600 per year."

NEW JERSEY

Englishtown, N. J.—Rooney Bros., Inc., have started construction of a grain storage building to replace the one that recently burned.

NEW YORK

Chaffee, N. Y.—R. B. Cornell & Co. property was damaged by high winds recently. The loss was small.

Westtown, N. Y.—Clarence G. Clark veteran feed dealer, died recently in Florida where he was vacationing.

New York, N. Y.—The following com'te to select candidates for directors to fill vacancies in the board of Eastern Federation of Feed Merchants, Inc., was appointed recently by Pres. Austin W. Carpenter of the ass'n; Andrew W. Roy, Sussex, N. J.; Frank Brown, Washingtonville, N. Y.; H. H. Dick, Delhi, N. Y.; and D. Briggs, Great Bend, N. Y.

New York, N. Y.—Henry L. Saam, 59, connected with the firm of Bartlett Frazier & Co. for about 30 years and more recently associated with Parker & Graff, in the Produce Exchange Bldg., died unexpectedly of a heart attack recently. Mr. Saam had been prominent in grain trade for over 40 years and was a member of the New York Produce Exchange.

Buffalo, N. Y.—Gerald W. Durant, Buffalo mgr. of Continental Grain Co., was elected pres. of the Buffalo Flour Club at a meeting in the Buffalo Canoe Club. He succeeds Fred A. McLellan, v.-pres. of the Co-op. G. L. F. Mills, Inc. Other officers are: V.-pres., Otto E. Auerbach, pres. of O. E. Auerbach, Inc., and sec'y-treas., R. H. Dean, Buffalo mgr. of the Checkerboard Elvtr. Co.—G. E. T.

Buffalo, N. Y.—Directors of the Corn Exchange elected the following officers Apr. 16, to represent the corporation for the ensuing year: Elmer J. Koehnlein, manager Buffalo branch of Allied Mills, Inc., pres.; Raymond E. Endress, mgr. Archer-Daniels-Midland Co., Buffalo, vice-pres.; Max F. Cohn, president of Sunset Grain & Feed Co., treas.; William E. Maloney, sec'y, and Richard J. Murray, ass't treas. The following directors were elected for three years: Max F. Cohn, Ben B. Davis, Norman B. Macpherson.

New York, N. Y.—Joseph W. Danforth, 76, retired president of Simpson Hendee & Co., feed and grain brokers of the New York Produce Exchange, died recently at his home in East Orange. He had been with the organization since 1898 and, altho retired in 1932, was on the Exchange floor almost daily.

NORTH DAKOTA

Loraine, N. D.—The International Elvtr. Co. is remodeling and modernizing its office.

Steele, N. D.—T. W. Allshouse, 81, who had been in the grain business here for many years, died Apr. 8.

Hazen, N. D.—The Russell-Miller Milling Co. plant sustained a small amount of damage from recent high winds.

Michigan, N. D.—The Michigan Farmers Union Elevator has been extensively repaired. A new 15-ton 28 ft. Fairbanks Scale has been installed and the driveway has been rebuilt and widened.

Fargo, N. D.—New members recently enrolled by the Farmers Grain Dealers Ass'n of North Dakota include the Farmers Equity Elvtr. Co., of Sterling and the Farmers Elvtr. Co., of Arnegard, N. D.

Aneta, N. D.—The Farmers Union Elvtr. Ass'n recently purchased the two elevators of the Imperial Elvtr. Co. operating here. Two companies now operate here, the Farmers Union Elvtr. Ass'n and the M. F. M. Grain Co.

Cathay, N. D.—The J. C. Miller Elevator, formerly known as the Poppleston Elevator, was destroyed by fire that started in the feed mill and spread to the main elevator and annex. About 15,000 bus. of grain were destroyed there.

Wahpeton, N. D.—The state supreme court recently ruled that P. L. Keating should receive only the price for wheat which was current on the day his 606 bus. burned Aug. 4, 1939, in the F. H. Peavey & Co. warehouse here, and he was not entitled to a higher price. Keating delivered 606 bus. on Aug. 3 and the warehouse burned the following day. He demanded judgment for a sum equal to the highest market value of such wheat between the time of his demand for the delivery and the date of trial. The Peavey company offered Keating \$339.46 as the value of the wheat at the time of its destruction and is still willing to pay this amount, which the supreme court upheld. The high court ruling in favor of the Peavey company reversed a Burleigh County district court verdict in favor of Keating.

OHIO

Bowling Green, O.—N. G. Bennett of McComb and I. T. Kendall have made many improvements to the Mennel Milling elevator property since taking it over. The new firm is called the B. G. Grain & Supply Co.

Wakeman, O.—Funeral services were held Apr. 14 for Joseph P. O'Donnell, 63 who was fatally injured when he was struck by an automobile half a mile east of here on Apr. 12. Mr. O'Donnell was born and reared in Cleveland but spent most of his life in Wakeman. He had been employed at the Wakeman Mill & Elevator Co. ever since it was organized in 1918.—P. J. P.

Toledo, O.—Sam Rice, president of the Grain & Feed Dealers National Ass'n, is planning on attending and addressing several of the western grain and feed dealers' ass'ns. Among them will be the California, Texas and Illinois Ass'ns. Mr. Rice is also president and manager of the Rice Grain Co., Toledo.

Toledo, O.—It has been recently announced that the Lansing Grain Co., Lansing, Mich., purchased the elevator of the Toledo Grain & Milling Co. The elevator has a capacity of 200,000 bus. The company has maintained a branch office in Toledo for the past five years. Paul Barnes is the manager of the Toledo office.

STRATTON GRAIN CO.

MILWAUKEE, WIS.

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Dayton, O.—Construction of a building to replace the Farm Buro Co-op. grain elevator destroyed by fire recently is under way, Lee Baumgardner, manager, announced.

Bowling Green, O.—The Hub Grain Co. has installed a new hammer mill. E. J. Buhrow, manager, stated the plant now is equipped to give a complete grinding and mixing service.

Oxford, O.—The Butler County Farm Buro has purchased a grain elevator from Harry Hughes in Liberty Township and will establish a branch there to service the eastern part of the county. Ed Edris is manager of the farm buro.

Reading, O.—The Co-operative Mills' modern six-story feed mill has been completed and is in operation. The building is constructed of brick, steel and concrete, and is as near fire-proof as it is possible to make it. The mill operation is a continuous line-mix operation, with a capacity of one ton of feed a minute. It is owned by the Southern States Co-operative, Richmond, Va., the Ohio Farm Buro, Columbus, and the Pennsylvania Farm Buro, Harrisburg, Pa.

High winds sweeping thru Ohio were responsible for many reports of elevators damaged. The losses in practically all instances were small, however. Among the companies reporting damages were the following: Studer Bros., Apple Creek; Studebaker Elevators, New Carlisle; Graham Milling Co., Lancaster; Mineralized Yeast Mills, Ingomar; Preble County Farm Buro Co-op. Ass'n, Inc., Eaton; Lodi Equity Co., Lodi; Pandora Milling Co., Pandora; J. A. Rudibaugh & Son, Rogers; C. O. Miller & Sons, Trebeins (Xenia p. o.), O.

OKLAHOMA

Walters, Okla.—Early in March, D. F. Wegener sustained an electrical damage loss in his elevator.

Covington, Okla.—The areaways around the Johnston Grain Co., Inc., elevator and office are being graveled and improved.

Moore, Okla.—Olen Rycroft, who recently purchased the Moore Mill from Jack Turner, has added a full line of feeds and seeds. He is specializing in custom grinding.

Altus, Okla.—Dick Slabaugh has opened the Altus Produce Co. He has been in the feed and produce business for the last 15 years and was located at Frederick for eight years.

Guyton, Okla.—The 15,000-bu. elevator leased and operated by the W. B. Johnston Grain Co. will be sold Apr. 30, by the F.C.A. subject to the existing lease, expiring May 31.

Fairfax, Okla.—L. A. Harrell is new manager of the Eberwein elevator, Clark Field having relinquished his lease on the elevator. Mr. Harrell states he will not engage in the retail feed business nor handle oil and gasoline.

Enid, Okla.—Oklahoma Grain & Feed Dealers Ass'n members are looking forward to one of the most interesting and instructive conventions in the history of the Ass'n when the annual conclave is held here May 13 and 14. Information necessary for handling their business will be available and an exceptionally large attendance is anticipated.

Oklahoma City, Okla.—Total rated storage capacity of commercial establishments facilities in Oklahoma is 44,263,000 bus. according to a survey as of Feb. 16, the U. S. Dept. of Agr. reports. Bulk storage capacity was reported at 41,835,000 bus. compared with 33,381,000 bus. reported March, 1941. Sacked storage capacity amounted to 2,236,000 bus. compared with 1,681,000 a year ago, and crib capacity totaled 192,000 bus. this year and 186,000 bus. last year. The increased capacity this year resulted in part from new construction in 1941 and in part from a more nearly complete survey in 1942. New construction either under way or planned as of Feb. 16, totaled 4,618,000 bus. Completion of this construction would result in a state capacity of 48,881,000 bus.

Vici, Okla.—The E. R. Humphrey Grain Co. is building a 23,000-bu. addition to its elevator, of which Carl Zeininger is manager.*

Geary, Okla.—The Geary Milling & Elvtr. Co. sustained a small loss recently as the result of damage at the plant caused by high winds.

Thomas, Okla.—The office of the E. B. McNeill Grain Co. was broken into recently and the safe cracked and robbed. The thief made a haul of about \$10 or \$12 and ruined a valuable safe.

Woodward, Okla.—The L. S. Fisher Grain Co. is building a 350,000-bu. concrete elevator on plans made by Horner & Wyatt. The elevator will have a total of 23 bins and will be equipped with a hopper scale and so arranged to receive and ship grain by rail or truck.

PACIFIC NORTHWEST

Multnomah, Ore.—M. W. Mummey sustained a smoke damage loss recently.

Havana, Ore.—The Pendleton Grain Growers, Inc., sustained a small loss on stock recently.

Cashmere, Wash.—The M. & M. Chevrolet Co. has opened a feed and poultry department.

Prosser, Wash.—The Taylor Motor Co. has added a feed department and is carrying a full line of poultry and stock feeds.

Spokane, Wash.—Thieves recently tried to break into the Nyman Mercantile Co. feed store but were frightened away by a burglar alarm.

Pasco, Wash.—At Schanno Spur Hal Hockett is building an addition to his elevator storage facilities. Haworth & Switzer have the contract.

Hazelton, Ida.—Harry Forbes, formerly of Jerome, who has been manager of the local elevator, resigned his position to return to Jerome.

Fairfield, Wash.—The Farmers Alliance Warehouse Co. will build an elevator here, capacity 60,000 bus. R. H. Sutherland has the contract. Modern pea cleaning machinery will be installed.

The Dalles, Wash.—The Port of The Dalles Commission has accepted the bid of the Hogen-son Const. Co. for construction of a cribbed grain elevator here.

Whitstran (Prosser p. o.), Wash.—Swen Sampson is now operating the feed grinding mill installed in the old Tum-a-Lum building, replacing the mill that burned.

Seattle, Wash.—The Seattle Port Commission has leased the East Waterway Dock and appurtenances on Harbor Island, with option to buy for \$900,000, it has been announced. The dock was leased to replace part of the facilities lost when the navy took over the Smith Cove terminal. As a part of the transaction, the port will immediately construct an 800,000-bu. elevator as an addition to the Hanford St. 1,500,000-bu. terminal grain elevator, to cost about \$360,000.

Granite Falls, Wash.—J. G. Bonnallie of Everett is new manager of the Granite Falls Feed Store. For the past 19 years he had been employed by the Riverside Milling Co. at Everett.

Eltopia, Wash.—Ezra and T. L. Thompson, brothers, are building a 30,000-bu. elevator which will be used for storage in addition to 28,000 bus. capacity on the Ezra Thompson ranch and 12,000 bus. on the T. L. Thompson ranch.

Waitsburg, Wash.—Zo Atkinson, who took over the management of the Atkinson Feed & Fuel Co. recently, remained in the business only a short time as he sold it back to his father, N. B. Atkinson, before noon of the day of purchase.

Thomas (Kent p. o.), Wash.—A large feed storage warehouse of the Kent Milling Co. and its contents of 1,000 bales of straw and 450 bales of hay were destroyed by fire recently. Alex Cooper, manager, estimated the loss at about \$9,500.

Portland, Ore.—Holly Goodrich of the Tri-angle Milling Co. will be the program chairman for the annual convention of the Oregon Feed & Seed Dealers convention, to be held at the Multnomah Hotel May 22. He will be assisted by R. G. Baxter, Jack White and Walter Scott, Jr.

Eureka, Wash.—Several ranchers are erecting elevators including Vogler and Owsley who are replacing their elevator which burned to the ground last year. The new elevator will be located on the site of the one that burned and will have a capacity of 130,000 bus. Haworth & Switzer have the contract.

Pomeroy, Wash.—The Centennial Flouring Mills Co. has purchased the Pomeroy Storage Co. warehouse which will be converted to handle 200,000 bus. of bulk grain, leaving 100,000 bus. for sack space. The company has plans for adding 75,000 bus. of bulk space at Dodge and is considering facilities at Zumwalt.

Portland, Ore.—Anticipating a shortage of storage space, representatives of agriculture, transportation agencies and the grain trade met here Apr. 17 to consider among other things the setting up of representative grain marketing com'ites similar to those established in 1941 to alleviate the storage and transportation situation.

Condon, Ore.—Grain storage is being increased here by construction of five wooden crib elevators, which will have a total capacity of 491,000 bus. The largest of the elevators will have a capacity of 300,000 bus. This is being built for the Condon Grain Growers Co-operative Ass'n. A 60,000 bus. elevator is under construction at Mikkalo station, and a 45,000 bus. elevator at the southern end of Shuter flat. Two are being built at Clem station, one of 35,000 bus. capacity and the other of 53,000. The first of these smaller elevators is for the co-operative ass'n, the others being built by individual wheat ranchers.—F. K. H.



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Chicago, Ill.

Boise, Ida.—The Idaho public utilities commission has authorized increases in grain handling and storage rates for northern Idaho and indicated in an order it will conduct a hearing soon on a petition for advancing the rates in southern Idaho.—F. K. H.

necessary for convention guests to share rooms. Wherever possible, make your reservations in pairs (two members to a room). The Marcus Whitman Hotel has 75 rooms with twin beds and will thus be able to accommodate a larger number of guests if they are willing to share their rooms. Make reservations now or at the earliest possible date."

Walla Walla, Wash.—The Pacific Northwest Grain Dealers Ass'n, Inc., urges its members who are planning to attend the convention June 12, to make early reservations for the occasion. Headquarters will be the Marcus Whitman Hotel. Don M. Gemberling, sec'y, writes: "Due to increased building activities in the Walla Walla area under the defense program, housing space is becoming very limited in that city. The hotel management has urgently requested that reservations for rooms be made at least 30 days in advance. It may also be

PENNSYLVANIA

Thompsontown, Pa.—John H. Kaegel has retired after having been associated with the Thompsontown Flour & Feed Co. for more than 52 years.

Hydetsown, Pa.—Thieves recently broke into the office of the Farms Service Store of General Mills, Inc., and stole \$109.40 in cash. Checks for over \$200 were untouched.

SOUTH DAKOTA

Yale, S. D.—The Farmers Elevator, filled with wheat, toppled over onto the railroad track.

Emery, S. D.—Edzards & Son installed a one-ton capacity Kelly Duplex Vertical Feed Mixer with belt drive.

Firesteel, S. D.—The South Dakota Wheat Growers Ass'n elevator and 18,000 bus. of sealed wheat were burned Apr. 11. George Goetz is manager.

Colman, S. D.—We will build a 26 x 68 ft. warehouse next to our feed plant, the construction contract having been let to the T. E. Ibberson Co.—Farmers Co-op. Elvtr. Co.

Herreid, S. D.—E. E. Clapp, 72, local grain and coal dealer for the past 15 years, died at the Eureka Hospital. Mr. Clapp owned two grain elevators in Herreid, which he had operated since 1927. Previous to moving to Herreid, he had operated an elevator at Lowry.

Rapid City, S. D.—Nothing was taken from the Quinn Tri-State elevator which was broken into recently. A hatchet and crowbar used to knock the dial from the safe, were found in the office. The safe was not opened. Entrance to the room was gained thru a ventilator shaft and a trap door.

Lennox, S. D.—The office of the Farm Commodity Exchange elevator was entered and ransacked recently and about \$14 in cash taken. Contents of the safe, desks and cabinets were strewn over the floor but the thieves overlooked \$9 in cash which Otto Freitag, the manager, had put away to pay his electric bill.

SOUTHEAST

Martinsburg, W. Va.—J. E. Johnson, 61, retired feed and flour merchant, died of a heart attack Mar. 22.

Clarksdale, Miss.—W. R. Bourne, chairman of the co-operative grain elevator and warehouse com'ite, has arranged for reopening of discussions regarding the proposed location of an elevator and warehouse here. To assure its location here it is suggested that the original capacity of 750,000 bus. be reduced to 200,000 or 300,000 bus.

St. Matthews, S. C.—The St. Matthews Milling Co. has completed construction of a modern storage elevator, with all latest equipment for wheat handling and storage. Mark Buyck is manager of the mill.

TENNESSEE

Goodlettsville, Tenn.—The Thomas Feed Store burned recently, the loss several thousand dollars.

Rogersville, Tenn.—J. A. McDonald & Sons are rebuilding their corn and wheat mills, which recently were flooded by the Cherokee Dam. The new structures, of increased capacity, are located about three miles from the company's present location on the river. Frank Leonhard has the contract.

TEXAS

San Antonio, Tex.—Jess H. Grinstead, manager of Liberty Mills, is showing some improvement from his recent critical illness.

Burkburnett, Tex.—J. F. Kelly Grain & Hatchery Co. installed a one-half-ton capacity Kelly Duplex Vertical Feed Mixer with motor drive.

Amarillo, Tex.—Paul Pellette, who was in the offices of the Producers Grain Corp. before enlisting for service recently, is in the medical training corps now, stationed at Camp Barkeley.

Dallas, Tex.—Clarence S. Chase, who recently resigned as manager of the Inland Mills, Inc., Des Moines, Ia., is entering the general merchandise brokerage business here under his own name, and will deal in cereals, flour and allied products. He will maintain his office at Cliff Towers.

Amarillo, Tex.—The Panhandle Grain & Feed Dealers Ass'n is making big plans for its annual convention to be held here May 15 and 16. Headquarters will be in the Herring Hotel and an exceptionally large attendance is anticipated because of the many important subjects that will be discussed in which all grain men are vitally interested.

Fort Worth, Tex.—The Frank A. Bailey Grain Co. plant was damaged by fire recently, that started in the elevator head house. The blaze was brought under control after extensive damage to the machinery and equipment of the plant, stored grain escaping destruction. C. E. Mallow, manager, stated the loss was partially covered by insurance.

Seymour, Tex.—The Kimball Milling Co. is adding six concrete grain storage bins of 25,000 bus. capacity each to its local elevator. The tanks will be 26 ft. in diameter and 41 ft. high, 10 ins. larger in diameter and three feet higher than the old bins. The bins will be serviced by conveyors for the operation of which new machinery is being installed. The long sheds used for storing maize, corn and oats were moved to the west side of the lot to make room for the new addition. P. B. Kelley is local manager.

WISCONSIN

West DePere, Wis.—The A. G. Wells Co. plant was slightly damaged by recent high winds.

Valders, Wis.—The Valders Elevator has installed a new Strong-Scott Triple Action Feed Mixer.

Milwaukee, Wis.—Josef Mueller, associated with the Kurth Malting Co., collapsed and died at his home Apr. 17.

Milwaukee, Wis.—Directors of the Froedterdt Grain & Malting Co. have declared a dividend of 20c a share on the common stock, payable May 1 to stock of record April 15, same dividend as was declared in the preceding quarter.—H. C. B.

Beaver Dam, Wis.—The J. LeRoy Farmer Hemp Mill has been rebuilt and equipped with new and modern machinery. It replaces the plant that burned Jan. 19. D. L. U'Ren is manager.

Madison, Wis.—Grain storage capacity of elevators and mills in Wisconsin totals 67,267,000 bus., according to the Wisconsin Crop Reporting Service. The estimate was based on a survey made Feb. 16 by the Agricultural Adjustment Administration, Agricultural Marketing Administration and the Bureau of Agricultural Economics. Bulk grain storage capacity was reported at 62,392,000 bus. compared with 59,217,000 bus. last year. Sacked storage capacity 4,717,000 bus. compared with 3,042,000 bus. in 1941. Crib capacity at 158,000 compared with 179,000 bus. last year.

Grain Storage Receipts

A written receipt is indispensable to grain dealers who store grain for farmers. This receipt records the amount, kind, and grade of grain, and sets forth terms of storage as follows:

"Stored grain will be purchased at per bushel under the Chicago future, settlement to be made on or before 19..... at which date the grain described herein will be considered sold.

"Storage must be paid for at the rate of for the first days, and at the rate ofc per bushel per (month, day) thereafter until sold, this charge to include fire insurance. Deterioration and shrinkage at owner's risk."

Grain Storage Receipt book contains 75 originals of goldenrod bond paper, 75 duplicates of manila, 3 sheets of carbon, and heavy, pearl-grey pressboard covers. Shipping weight, 1 lb. Order Form 168R. Price 95c each, or 3 books for \$2.50, plus postage.

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for use in advising receivers of the amount and grade of grain loaded into a car. Especially adapted for filing claims for Loss of Weight in Transit. Each certificate gives: "Kind of scale used; Station; Car Number and Initials; Shipper's Name;—lbs. equal to—bus. of No. —; Date scales were tested and by whom; car thoroughly examined and found to be in good condition and properly sealed when delivered to the ————R. R. Co.; Seal Record, name and number, sides and ends; marked capacity of car; date; name of the weigher." On back is a form for recording the weight of each draught.

Printed and numbered in duplicate. Originals on Goldenrod Bond; duplicates on tough pink manila in two colors of ink. Well bound with heavy hinged pressboard covers. 75 originals, 75 duplicates and four sheets of carbon paper. Size 4½ x 4¾ inches. Weight 11 ozs.

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Grain Carriers

Class I railroads had on order Apr. 1 34,488 box cars.

Only 3.6 % of all the freight cars owned by the railroads were in need of repair on March 15, 1942, the lowest on record.

Estimates at the Mar. 27 meeting of the Pacific Northwest Shippers Advisory Board in Portland Ore., anticipated a 27.6% increase in grain loadings for 1942's second quarter.

Class I railroads in 1941 put 80,502 new freight cars and 633 new locomotives in service. On Jan. 1, 1942, there were 74,897 new freight cars and 546 new locomotives on order.

The War Shipping Administration has approved and effected a surcharge of 42% on molasses rates from Cuba and Puerto Rico to Atlantic ports north of Hatteras; 34% to Gulf ports.

Fourth Section application No. 18778 decision by division 2 of the I. C. C. allows rate of 33c on grain products, Mount Vernon, Ind., to Birmingham, Ala., over route thru Evansville, Ind. This rate has been permissible since Jan. 25, 1941, under temporary relief.

Pennsylvania's Representative Snyder has introduced in the House a bill to require commercial users of the inland waterways to pay a toll to the federal government for such use, to recover, at least in part, the government's expense in making these waterways navigable.

Chairman Mansfield of the House rivers and harbors committee and President Roosevelt are reported to have exchanged letters agreeing that more barges and tow boats are needed on inland waterways. ODT is studying the problem, which consists mainly of materials and manpower for construction of the needed equipment.

In I & S. No. 4937, salt, Kansas, Utah, to Colorado, Wyoming, Kansas, Missouri and New Mexico, division 3 of the I. C. C. decided railroads have a right to reduce rates to attract traffic so long as such reduced rates conform to the Interstate Commerce Act. Concern was truck competition for traffic in this commodity.

No. 28499, Kansas City Board of Trade vs. C. R. I. & P. Ry., is the plea of the former for cancellation of Kansas City's proportional rates on grain originating in Nebraska points on the defendant's lines in Arkansas. Claimed is a competitive disadvantage with other markets of 0.5 to 10c per cwt. on this traffic by reason of these proportionals.

The War Production Board's decision of April 8 would allow materials for only 63,000 cars in 1942—45,000 already built, and the additional 18,000 authorized. Construction of these 18,000 cars in the last eight months of the year would be at the rate of only 2,250 a month—less than the rate at which necessary retirements of old freight cars recently have been occurring.—Railway Age.

Grain and grain products loading totaled 33,861 cars during the week ending Apr. 11, a decrease of 1,469 cars below the preceding week, but an increase of 165 cars above the corresponding week in 1941. In the Western Districts alone, grain and grain products loading for the week of April 11 totaled 20,976 cars, a decrease of 973 cars below the preceding week, but an increase of 1,040 cars above the corresponding week in 1941, as reported by the Ass'n of American Railroads.

Capital expenditures for equipment and other improvements to railway property made by Class I railroads in 1941 totaled \$543,021,000, the greatest amount spent in any year since 1930, the Association of American Railroads announced.

St. Louis, Mo.—Southwestern railroads have proposed thru the Southwestern Freight Bureau that out-of-line and back-haul waivers on grain and grain products be eliminated. The carriers' proposal, No. 27714, would substitute a scale of charges higher than is now in effect.

Normally, intercoastal freight traffic via the Panama Canal amounts to about 10 million tons a year. Steamship services between Atlantic and Pacific ports already are all but abandoned, as are many coast-wise water services. The long haul involved in diversion of this intercoastal traffic to the railroads, a haul ten or more times greater than the haul for the average rail freight ton, alone means a tremendous addition to the rail freight load, when it is considered in terms of freight ton miles.

No "Reefer" Cars for Fumigation

The railroad companies have notified dealers in grain and seeds that no refrigerator cars will be furnished for fumigation purposes.

Seedsmen who must fumigate seeds to comply with regulations must build vaults for the purpose; and, fortunately, there are no war restrictions on lumber, and those on nails will be eased.

ODT Urges Co-operative Marketing Transportation

The Office of Defense Transportation and the U.S.D.A. are fostering a plan whereby farmers would co-operate to share their trucks for transportation of farm commodities to local markets.

"Pooling equipment and co-operative hauling of products and supplies is the keystone of the plan by which farm truck mileage can be reduced 35 to 50 per cent without undue hardship to anyone," said ODT's announcement.

The voluntary plan asks farmers to: (1) keep their trucks in top mechanical condition; (2) eliminate unnecessary use of trucks; (3) cooperate with their neighbors to form transportation pools; (4) revise marketing and buying programs to eliminate operation of empty trucks and carrying of partial loads.

With more than 1,500,000 trucks engaged in hauling farm products, the plan is expected to make tremendous savings in tires, gas, oil, repairs, and man power, but it will not.

Protest Service Order No. 68

The Emergency Grain & Grain Products Traffic Council of Kansas City, and the Northwest Country Elevator Ass'n and the Minnesota Farmers Elevator Ass'n, of Minneapolis, have joined under leadership of Frank B. Townsend of the Minneapolis Traffic Ass'n, to ask the Interstate Commerce Commission to ease the restrictions in its Service Order No. 68.

Complaints are: Delays in obtaining cars of the size necessary for shipment; extra switching when cars of sizes other than ordered are set; empty car mileage when cars set at country stations are not of the size ordered; discrimination in distribution of cars at terminal markets when two or more customers order the same size cars and the railroad has an insufficient number of such cars to fill all orders; additional expense to shippers who load cars larger than ordered when these are set but have insufficient grain to load them full; loss of business to motor trucks where shippers could not get minimum weight cars, or load cars set because of the order's restrictions.

Objecting grain dealers proposed minimum carloads of 64,000 lbs. for corn and coarse grains; 80,000 lbs. for soy beans, flaxseed, wheat and other small grains.

River Shipments of Grain Get Preferential Rates

An injunction restraining the Interstate Commerce Commission from discontinuing preferential rates applied to eastward movement by rail of grain shipped to Chicago by barge over the Illinois river, has been issued by Federal Judges Evan A. Evans, Charles E. Woodward and William H. Holly, sitting en banc.

A plea for the injunction was made by Inland Waterways Ass'n, et al., who contended that dropping of the preferential rates would inflict hardship on shippers who load barges.

Co-operating Shippers Speed Up Transportation

"American railroads have performed about 15 per cent more freight service in the last six months than in any corresponding period, during either peace or war," declared Z. G. Hopkins, in an address last week.

"The country's shippers have contributed much more than most people realize to the transportation results that have been secured. The country will be increasingly obligated to them, in the days ahead, for continuing co-operation to insure the most effective utilization of all transportation facilities for the common benefit.

"Their co-operation in increasing average car loading, and in reducing time consumed in loading and unloading has been ungrudging and unselfish. Without it the transportation efficiency thru which the average locomotive performed 41 per cent more service in 1941 than it did in 1929, and the average freight car performed 35 per cent more service than it did in 1929, would not have been developed."

Drivers' Helpers Subject to Wage-Hour Law

Mechanics, loaders, and drivers' helpers employed by private carriers are subject to the overtime provisions of the wage-hour law (Section 13 (b) (1)) according to an opinion given by the Administrator in a revised edition of Interpretative Bulletin No. 9, altho drivers of private carriers in interstate commerce are considered exempt because they are regulated by the Interstate Commerce Commission.

This interpretation is contrary to the provisions covering common and contract carriers to the extent that in the latter case mechanics, loaders and drivers' helpers are exempted from wage-hour law regulations.

The revised bulletin points out further that a truck driver who regularly spends in excess of 20 per cent of his time during any work week on non-exempt activities (example: producing goods for interstate commerce), is not within the exemption defined in Section 13 (b) (1), in spite of the fact that as a driver he comes under the regulations of the I.C.C. Governing factor is the interstate or intrastate character of that division of his employer's business in which the driver is engaged when not driving.—*Twinedledum-Twinedledec.*

Castor bean cultivation tests by Texas Agricultural Experiment Station gave an average yield of 1,238 lbs. of seed per acre on unirrigated land in 1939-41.

Piraeus, Greece—When 7,000 tons of Australian wheat arrived at this port thru arrangement between the Axis and United Nations for its safe passage, on the Swedish freighter Radmanso, Greek stevedores were so hungry and exhausted they were hardly able to unload the cargo, according to the ship's crew members.

Field Seeds

South Boston, Va.—The Slate Seed Co. has filed to increase its maximum authorized stock from \$15,000 to \$40,000, and to create a preferred stock. President is R. R. Slate.

Edgerton, Wis.—Walter Chapman has sold his Chapman Feed & Seed Co. to Rock County Farm Bureau Warehouse Cooperative, but continues as manager of the store.

Brunswick, Mo.—William Gerhardt, 70, who had been in the seed business here since 1929 until Mar. 16, when the business was sold to Harry and Justin Huber, died April 1 at the Fitzgibbons Hospital in Marshall. —P. J. P.

Postville, Ia.—The seed cleaning plant of Hall Robert's Son, which was damaged in a recent fire, is being rebuilt. New seed cleaning machinery is being installed. In the interim, seed cleaning has been carried on with auxiliary machines in the elevator.

High yielding varieties of soybeans at Purdue University's experiment station, Lafayette, Ind., 1933-40, were Illini, Manchus, and Chief, each producing 32 bus. per acre, and 70218-2, producing 33 bus. per acre. At Baton Rouge, La., Louisiana Hybrid 38-40 produced 26.7 bus. average 1939-41, Louisiana Hybrid 38-34 and Tanyellow Hybrid 36, each 25.3.

Lexington, Ky.—W. C. Johnston, college of agriculture field agent, quotes figures and acreage estimates to cite the success of hybrid corn in Kentucky. He says: 3,234 farmers grew 40,000 acres of hybrid corn in 1938; 10,463 grew 119,379 acres in 1939; 18,043 grew 189,666 acres in 1940, and 34,053 grew 391,519 acres in 1941. He adds that 1941 tests showed hybrids produced an average of 10 bus. more per acre than local varieties, which means an additional 4,000-500 bus. of corn on the acres planted.

Good Seed Oats Produce Higher Quality Crop

C. M. Hidding, manager of the Purity Oats Co. at Keokuk, Ia., who has had broad experience in buying both Illinois and Iowa oats, is a firm believer in farm planting of top quality seed, and careful harvesting methods. He says: "Iowa's oats crop last year was cut 47 per cent by rust and smut alone with no mention of weeds, mixed varieties or poor production methods.

"In 1940, 76 per cent of the Iowa oats crop graded No. 3 or lower at market, while to date the outturn of the 1941 crop shows 88 per cent has graded No. 3 or lower.

"Figures of the Illinois crop for the same years show that 85 per cent graded No. 1 or No. 1 extra heavy.

"It is reported that Iowa produced 176 million bushels of oats in 1941 but would have produced 333 million bushels had farmers been raising one of the five new disease resisting varieties. This, however, does not consider decreased yields caused by weed seeds, mixed varieties and other mixed grains.

"Improved quality of Illinois oats is attributed to the care in selection of seed and cleaning of the seed before planting."

Lebanon, Ore.—G. N. Gillenwater has under construction a 60x100 ft. warehouse to house his seed and feed business, and seed cleaning machinery. The structure is frame, with loading platforms on four sides.

Lafayette, Ind.—Three newly introduced oat varieties, Marion, Boone, and Vicland are being compared with three well known and adapted varieties, Gopher, Cartier, and Columbia, in 26 farm demonstrations situated in 17 Indiana counties. These demonstrations, carried on by County Crop Improvement Ass'ns in co-operation with the agronomy extension department of Purdue University and the county agricultural extension service are designed to give farmers an opportunity to observe variety performance under local conditions of the latest developments in plant breeding.

Arkansas Finds Johnson in Sudan

Several shipments of Sudan grass into Arkansas marked "Noxious Weeds per pound—None" showed from three to six Johnson grass per pound in repeated tests, reports the Arkansas State Plant Board. This is within the tolerance allowed under the Federal Seed Act, and the shipper is not subject to a criminal action, but before such seed can be sold in Arkansas the red "Excessive Noxious Weeds" tags, showing the rate of occurrence of Johnson as found by the Board, must be attached by the merchant to each bag.

Merchants in buying Sudan should bear this in mind, and should have it understood with the seedsmen that seed tagged to show no noxious per pound must not only be within the technical tolerance, but must in fact contain no Johnson per pound.

McClave and New London Will Suffer Heavy Discounts

I have been definitely informed by an officer of the C.C.C. that it is not their idea or desire to enter the retail field of selling soybeans for seed purposes in competition with the local elevators or seed firms.

The C.C.C. will purchase from producers, soybean seed of unmixed yellow and green oil varieties approved by the War Board. Seed beans germinating 85% or better, re-cleaned, with not over 5% splits, of approved varieties and unmixed, will be purchased by the C.C.C. at \$2 per bushel, delivered at an approved warehouse. Applications by producers to sell must be made *not later* than Apr. 10.

Deliveries on purchases will probably not be called for by C.C.C. until the latter part of May. Germination tests will take from 2 to 3 weeks' time after samples are submitted. In the meantime dealers will be furnishing customers with their seed requirements. One variety of soybeans NOT to sell for seed, and one to DISCOURAGE for planting by the farmers, is the McClave. It is sometimes also known as the New London or Midwest. These will suffer heavy discounts by the processors. —Fred W. Sale, sec'y Indiana Grain Dealers Ass'n.

Vicland Seed Oats Sold Out

Vicland oats is a new variety developed by Wisconsin College of Agriculture agronomists for resistance to stem rust, crown rust, and covered and loose smut. It has met with quick acceptance from growers.

E. D. Holden, of the college, reports practically all of the 228,000 bus. of seed produced by Wisconsin growers last year, has been sold for seed purposes. He expects over 100,000 acres to be seeded this year, and he believes enough Vicland seed oats will be produced to seed all acreages adapted to this variety in 1943.

Tests Soybean Variety

Glen E. Mutti, county agent in Audrain County, Mo., is distributing 30 bus. of seed from a new variety of soybeans, secured from the state's experiment station at Elsberry.

Tested for the last 5 years, and found to yield from 3 to 5 bus. more commercial soybeans per acre than the next highest yielding variety, the new variety is expected to find a place quickly in the hearts of Missouri farmers. The new bean is yellow, high in oil, drought resistant and almost shatter proof.

County Agent Mutti is distributing small lots of the seed to farmers in all parts of the county for testing.

Pacific Seed Dealers' Convention Program

The Pacific States Seedsmen's Ass'n will hold its annual convention at Santa Barbara, Cal., June 1 and 2. The program calls for both forenoon and afternoon business sessions.

Highlights are the seed ass'n reports by Cy Voorhies of the California Seed Ass'n; R. C. Miksche, of the Tri-State Ass'n; Charles Morse, of the California Seed Council; Glen Ritchey of Oregon Seed League, and Jim Young of the American Seed Trade Ass'n.

U.S.D.A.'s Mr. Hay will speak on the Federal Seed Act; Prof. G. R. Hyslop, of Oregon State College, will deliver a study of Field and Grass Seeds in Pacific Northwest; and Prof. B. A. Madsen, University of California, will tell about Field Seeds in California.

Judgment for Seizure of Grass Seed

Justice Homer A. Fuller of the district court at Des Moines on Apr. 16 directed the jury to give a verdict in favor of Ed Roseman of Lormor, Ia., for \$3,567 against the Rudy-Patrick Seed Co., of Kansas City, Mo.

On a writ of replevin the Rudy-Patrick Co. had the sheriff of Union County seize 3,500 bus. of bluegrass seed July 19, 1941. The market price in July was 96c per bushel, against the present price of 85c, and the market value of the seed was set at \$3,567.58.

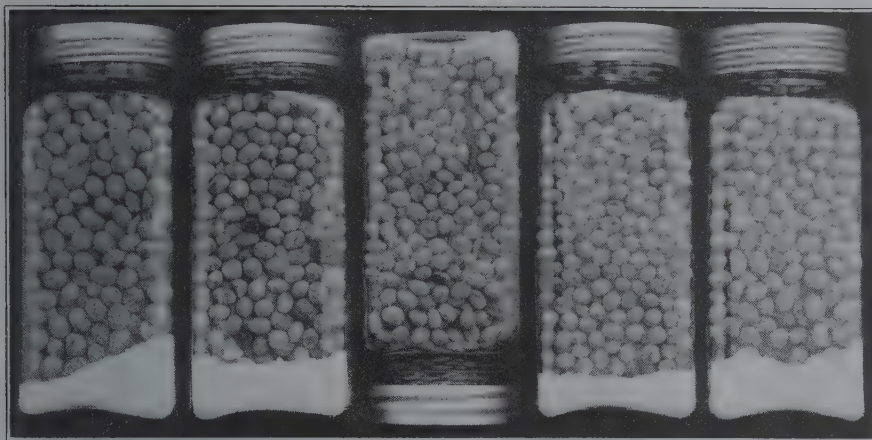
Attorney for defendant Roseman said plaintiff had failed to make its demand known prior to the suit; and that it was not licensed to operate in Iowa. This point was sustained by the court, finding the plaintiff had no corporate license in Iowa, and consequently could not maintain an action at law in the state.

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Soybeans from Illinois Experiment Station. L. to R: Richland, Illini, McClave, Chief, and Dunfield

Watch Seed Soybeans in Your Community

With the urgent demand for seed soybeans to plant the 9,000,000 acres of this crop asked by U.S.D.A. to develop domestic self-sufficiency in vegetable oils, it behooves every country elevator operator to watch carefully the varieties planted in the territory tributary to his elevator. If the elevator operator sells soybeans for seed, he should know the variety he is selling, and he should know its acceptability to processors. If seed soybeans from unknown sources are being sold in his community, he should point out to purchasing farmers the danger of buying from other than proven reliable seed houses because the unwanted McClave soybean, also known as New London, Hollybrook, and Midwest, may travel this year under a new banner.

Processors do not want the McClave soybean. It yields from 3 to 5 per cent less oil than standard, accepted yellow soybeans, and the oil pressed from soybeans is a major source of income for processors.

It is virtually impossible to tell the McClave soybean from several of the fine, accepted varieties of yellow soybeans on simple examination. Many processors will refuse to attempt to tell them apart. But a check of the oil content (unfortunately, a process too complicated for practical use in a country elevator office) soon tells them of the presence of the interloper. Thereafter the processor grows cautious. He discounts beans from the area where the McClave beans originated.

The appearance of McClave soybeans we have seen indicates that it may be possible for the expert to recognize them when present in large masses. Dunfield, Richland, Illini, Chief, and numerous others have a slightly more oily, slick, translucent appearance than the McClave, probably due to their higher oil content. If a country elevator operator were to keep on hand a large sample of McClave soybeans for comparison with offerings, he might have the basis for a reasonably sound guess as to the acceptability of such offerings.

Best bet, tho, is to travel thru the community in the growing season, and examine the beans in the field as they approach maturity. McClave soybeans grow large and bushy. They look as tho they should produce a tremendous yield. But reports have it that most McClave pods carry only two beans, while the pods of accepted varieties carry three. Further, when mature, the McClave shatters readily during the harvesting operation, causing loss in the field.

A good guide to acceptable varieties is the list on which the Commodity Credit Corp. based its offer to buy seed soybeans at \$2 per bushel. This list specified Illini, Manchu, Mukden, Wisconsin 3, Dunfield, Mandell, Richland, Chief, Macoupin, Mansoy, Mount Carmel, Indiana 5, Indiana 7, and Scioto.

Advantages of Hybrid Alfalfa

Hybrid alfalfas bred like hybrid corn in four-way crosses for superior qualities and for the same kind of high production that results from hybrid vigor are in prospect, says the U. S. Department of Agriculture. A new method of breeding and managing the plants that bear the hybrid seed has been developed and tested on a limited scale. Similarly managed seed fields would supply the commercial alfalfa seed for planting of the hay and pasture acreage.

As with hybrid corn, commercial alfalfa seed will be bred from selected and tested foundation plants that hybridize well to produce desirable, vigorous and generally uniform plants. Fields planted with hybrid seed would be expected to yield materially more than if seeded with ordinary open-pollinated seed. Early indications point to alfalfa yield increases on a par with the gains from use of hybrid corn seed.

"It will be much simpler to make the first generation commercial double crosses in alfalfa than it is in corn," says H. M. Tysdal, agronomist of the Bureau of Plant Industry specializing in alfalfa breeding with headquarters at Lincoln, Neb., where he is cooperating with the Agronomy Department of the University of Nebraska.

One reason why it will be easier to make the four-way cross in a hybrid alfalfa is that alfalfa is a perennial plant. Once four desirable foundation plants have been identified, they can be multiplied by rooting slips, and the same cross can be repeated year after year.

The point at which Dr. Tysdal's method contrasts most sharply with previous tests in alfalfa breeding is the emphasis he puts on "self-sterile" plants as desirable foundation material for making the four-way crosses. In trying to improve alfalfa, either by selecting superior plants or by development of so-called "synthetic strains," the tendency has been to make use of alfalfa plants that were good seeders even under unfavorable conditions.

Many of these "good seeders" were likely to be the plants that could be fertilized with their own pollen. Thus much of this seed was really inbred. Alfalfa is like corn in showing a sharp drop in vigor and productiveness as a result of inbreeding, according to recent experiments by the Bureau designed to establish this point.

Dr. Tysdal proposes to use for foundation plants in a four-way cross, four plants—or two pairs of plants—(A and B) and (C and D) that are nearly or quite self-sterile. Each pair should combine well to provide a single cross that is also highly self-sterile. Inbreeding or "selfing" and skilled observation will help in selecting such plants that combine many desirable qualities, but trial and error and actual field tests of the hybrids would still be the main reliance. When experiment has identified two such pairs that combine in a highly desirable four-way cross the stage is set for commercial production of seed.

The mechanics of seed production would then be simpler than with corn, in which it is necessary to continue the inbreeding of the foundation stock from year to year. With alfalfa, Plant A and Plant B would be propagated as rapidly as possible in the greenhouse by rooting slips. Dr. Tysdal estimates that it would cost about \$60 for the planting stock for an acre. The plants would be set out alternately in a field to cross and produce seed. Another similar plot would be set with alternate plants propagated from Plant C and Plant D.

Seed harvested from the AB plot would be mixed with seed from the CD plot and used for planting the production fields from which would be harvested the ABCD seed that would be sold to farmers. Dr. Tysdal estimates that two 25-acre fields of the AB and CD crossing plots

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would within five years be able to maintain one million acres of hybrid alfalfa under production on a five-year rotation basis.

Gearmotors for the Grain Elevator

By J. Z. LINSSEMEYER, Industry Engineering of Westinghouse Electric & Manufacturing Co.

With the extension of power lines into new areas, many grain elevator operators now have an opportunity to substitute individual electric motor drives for the single engine prime mover with its countershafts and belting.

Parallel with the progress in distribution of electricity have come improvements in motor designs to meet the various requirements of industry. For the grain elevator we have the dust tight totally enclosed fan-cooled motor and the newer development of the gearmotor—the motor and the geared speed reducer built as an integral unit.

The grain industry utilizes numerous machines which must operate at relatively low shaft speed. For the best performance and the most economical installation, small or medium size motors, especially alternating current machines, should operate at comparatively high speeds as 1150 or 1750 RPM. Lower speed motors are of course available, but for most cases where the machine drive shaft speeds are 900 RPM or below and direct couplings is desired, it will be found more economical to use a high speed motor with some form of speed reducer.

Previously these speed reductions were generally accomplished by a combination of belts, countershafts, chains and gears, requiring a large amount of space and millwright work, constituting a considerable hazard to operators, requiring much maintenance, and giving low overall efficiency. A comparison of the modern gearmotor elevator leg drive shown in Figure 1 with the old open gear and countershaft drive makes the compactness and safety of the gearmotor drive immediately evident.

Modern gearing parts have an efficiency of 98 per cent for single reduction, 96 per cent for double reduction, and 94 to 95 per cent for triple reduction units. The number of moving parts has been cut to a minimum.

Figure 3 illustrates a double reduction gearmotor with a maximum ratio in the gearing parts of 40 to 1. With the type of construction here shown, which permits removing the upper half of the gear casing, it is possible quickly to inspect all of the gearing parts without disturbing the motor or the connected apparatus. A change in gear ratios may be readily effected. If desired, the self-contained, two bearing mo-

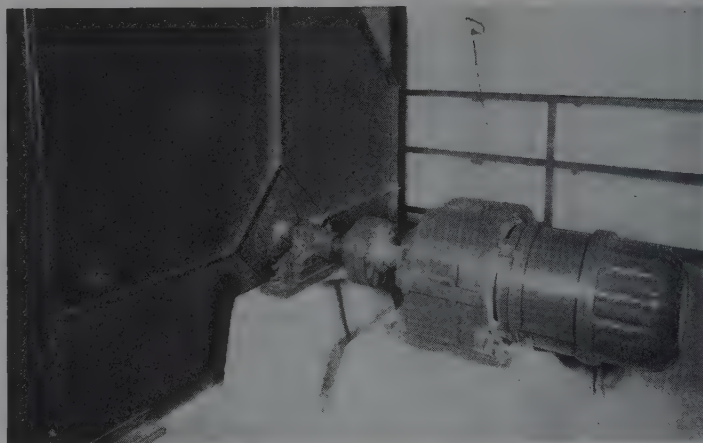


Fig. 1. Gear Motor Driving Head Shaft of Elevator Leg

tor can be removed and tested individually, simply by removing the several bolts which hold the adapter casting to the gear case.

The gearmotor makes an excellent application especially for driving elevator legs, screw and belt conveyors, feed mixers, etc.

The Westinghouse gearmotor is made in sizes $\frac{3}{4}$ to 75 h.p. ratings to meet every requirement of the grain elevator. It is furnished with any of the 30 AGMA standardized output speeds from approximately 4 to 1430 rpm.

WPB Restricts Grain Elevator Supplies

A current order of the War Production Board, made effective Apr. 6, limits inventories that may be carried by wholesalers, distributors, jobbers, branch warehouses, dealers and retailers of 19 types of supplies which include grain elevator, farm, transmission, hardware, and electrical equipment.

Exempted from the order are those suppliers with total inventories of less than \$20,000, or with inventories of each type of supplies at less than \$10,000 when figured at cost, with consigned stocks included. The limitations are defined as:

In the case of a supplier located in the eastern or central war time zones, an inventory (owned or consigned to him) of supplies of a total dollar value (by physical or book inventory, at the option of the supplier) equal to twice the dollar value of sales of such supplies, shipped from his inventories, during the second preceding calendar month.

In the case of a supplier, located in any other time zone, an inventory (owned or consigned to him) of supplies of a total dollar value (by physical or book inventory, at the option of the supplier) equal to three times the dollar value of sales of such supplies, shipped from his inventories, during the second preceding calendar month.

Farm Credit Administration reports that 1941 repayments by farmers of emergency crop and feed loans exceeded the amount borrowed by \$4,800,000. But "many of the loans collected...were made from 4 to 20 years ago," admits C. W. Warburton, FCA deputy governor. "Improvement in farm income...is largely responsible for the increased collection."

Supply Trade

Washington, D. C.—The senate patents committee is studying the effects of patent controls on war production. Public hearings are being held on legislation authorizing compulsory licensing of all patents needed in the war effort.

Trenton, N. J.—The federal court Apr. 11 ordered the Westinghouse Electric & Mfg. Co. to issue royalty-free licenses to any persons applying under all patents relating to lamps held by Westinghouse without any restrictions as to the products to be manufactured or the price to be charged.

Washington, D. C.—Major prime contractors are asked by Donald M. Nelson, chairman of the War Production Board, to spread more work among other firms. "Every available idle tool that can be put to work must be put to work. This may cost more, but the job must be done fast, and experience has taught us that some prime contracts can be subcontracted as much as 90 per cent."

Oklahoma City, Okla.—When R. A. Lester doing business as the Jay Bee Sales Co. and J. B. Sales Co. brought suit against A. L. Doss, Harley Sharp and the Southwestern Bell Telephone Co. J. B. Sedberry, Inc., intervened and got an order of court permanently enjoining Lester from using the names Jay Bee Sales Co. and J. B. Sales Co. and from using in any way the words "Jay Bee" and from offering for sale counterfeits of Jay Bee Mills. The court retained jurisdiction for the purpose of assessing the damages to the defendants and the intervenor. In court Edward Spears, attorney for trustee, testified that Lester had made an assignment for the benefit of creditors.

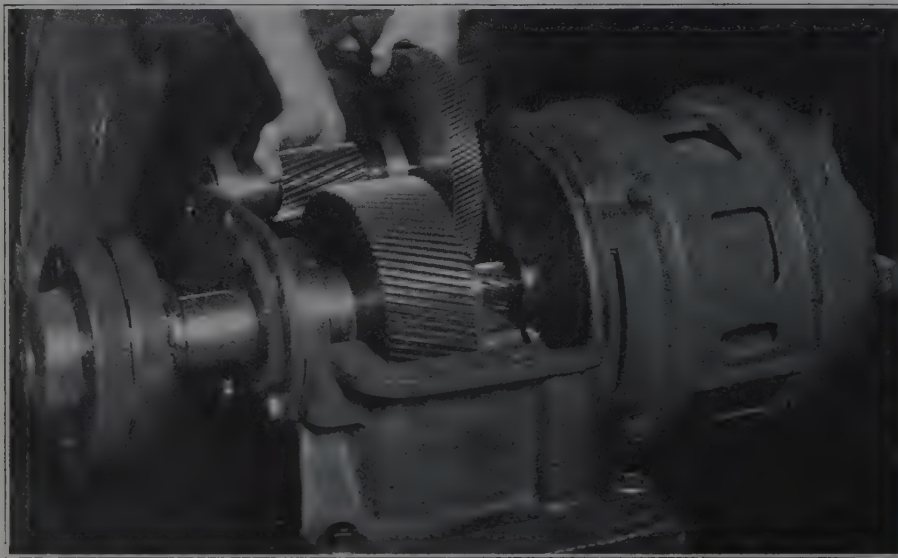


Fig. 2. Casing of Gear Motor Removed Showing Four Gears

Air Oven Method of Moisture Testing

APPARATUS.—Metal dishes should have a diameter of about 55 mm., a height of about 15 mm., and should be provided with inverted slip-in covers fitting tightly on the inside which can be easily removed and replaced while the dishes are in the oven.

Desiccator should contain reigned quicklime, anhydrous calcium chloride, or other suitable desiccant.

Oven should be of triple-walled type (DeKhotinsky or equal), capable of being maintained at 130° C. ($\pm 1^\circ$), provided with an opening for ventilation, and equipped with a suitable thermometer accurate to within 0.5° C.

DETERMINATION A (one-stage procedure).—Grind a representative 10- to 15-gram portion of the original sample (Wiley Laboratory Mill, Intermediate Model, or equal) so that all the ground material will pass thru a 20-mesh wire sieve. Great care should be taken to avoid loss or gain of moisture in the sample before grinding, during the grinding, and before weighing. Certain types of mills heat the grain during grinding, and such mills should not be used unless the mill is permitted to cool between grindings. The meal should pass directly from the mill to a suitable container not much larger than necessary to hold the sample. The container should be tightly closed immediately after the sample is introduced.

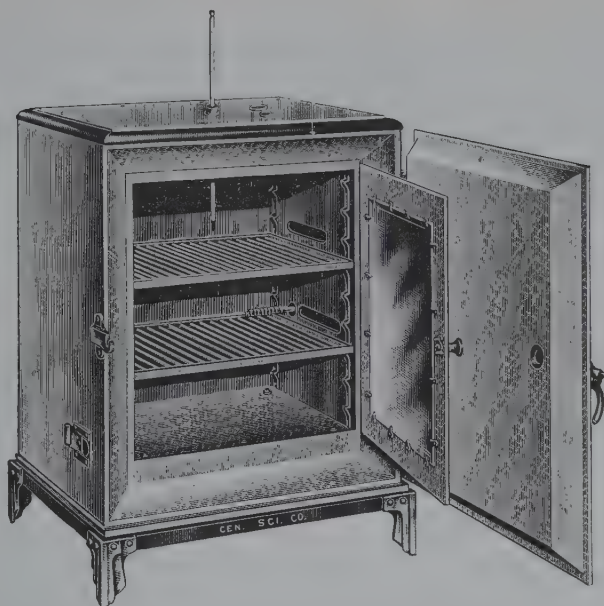
Immediately after grinding, place representative portions (duplicates at least) of approximately 2 to 3 grams each of the ground, well-mixed sample into metal covered-type dishes which have been previously dried at 130° C., cooled in a desiccator, and individually weighed soon after they reached room temperature. Immediately cover the dishes containing the portions of the sample and weigh each in grams to the fourth decimal place. For each portion subtract the weight of the dish from the total weight and record the result as the weight of the damp material. Uncover the dishes and place them in the oven regulated to a temperature of 130° C. ($\pm 1^\circ$). All moisture dishes should be placed as near as possible to the center of a single wire shelf in the oven, and the oven thermometer should be placed so that its mercury bulb comes as close as possible to the dishes.

After heating the material for 1 hour (timing the interval from that instant when the oven reaches 130° C. after the insertion of the metal dishes), cover the metal dishes while still in the oven, transfer them to a desiccator, and weigh them individually soon after they reach room temperature. In each case calculate the loss in weight as moisture and determine the percentage of moisture by dividing the loss in weight due to heating by the weight of the original portion of sample that was used for the test. Replicate determinations should check within 0.1 per cent moisture.

DETERMINATION B (two-stage procedure).—Use covered metal dishes (duplicates at least) which have been previously dried at 130° C., cooled in a desiccator, and individually weighed soon after they reached room temperature. Fill the dishes nearly full with representative portions of the unground grain, the moisture content of which is to be determined. Weigh each covered dish including its content and determine the weight in grams to the fourth decimal place. In each case subtract the weight of the dish from the total weight and record the result as the weight of the material used.

Uncover the dishes and place them in a warm, well-ventilated place (preferably on top of the heated oven) protected from dust so that the grain will dry reasonably fast and reach approximately an air-dry condition. This usually may be accomplished in from 14 to 16 hours when the top of the heated oven is used for this preliminary drying. In all cases the moisture content must be reduced to 13 per cent or less in this first stage.

Close the metal dishes containing the air-dried grain and weigh each of them soon after they



Air Oven for Moisture Test of Soybeans

reach room temperature. In each case, determine the loss in weight of the grain and record it as the moisture loss that is due to air drying. Using the air-dried grain, proceed in the manner described under Determination A, making at least duplicate determinations on each air-dried portion.

Calculate the percentage of moisture in the original sample according to the method indicated in the following example:

Item:	
1. Weight of the portion of the original sample of grain used for the test	27.2358 gm.
2. Weight of the portion after air drying	25.1836 gm.
3. Moisture loss due to air drying ..	2.0522 gm.
4. Weight of the subportion of the air-dried sample used for the 130° C. air-oven drying	2.8753 gm.
5. Weight of the subportion after oven drying	2.5779 gm.
6. Loss of moisture due to oven drying .....	.2974 gm.
7. Weight of moisture in the original air-dried portion (see item 2)	
0.2974×25.1836	= 2.6048 gm.
2.8753	
8. Total weight of moisture in the original portion (see item 1)	
(a) Loss in air drying. 2.0522	
(b) Moisture in air-dried portion	2.6048
9. Percentage of moisture in original portion (see item 1) [total weight of moisture in original portion (item 8) divided by the weight of the original portion (item 1)]	
$\frac{4.6570}{27.2358}$	17.10 per cent

Replicate determinations should check within 0.1 per cent moisture.

The one-stage procedure may be used on all samples believed to contain 13% or less of moisture.

If sample shows more than 13% the 2-stage procedure under determination B must be followed.—U.S.D.A. Service and Regulatory Announcement No. 147.

Air Oven for Testing Soybeans

The DeKhotinsky, or equivalent, oven specified for testing soybeans for moisture is electrically heated and controlled, operating at temperatures up to 210 degrees C, and not varying more than one degree from the temperature at which it is set.

The three walls provide sufficient insulation, and contribute to the distribution of heat and air circulation.

To eliminate direct radiation from the heating units they are located in a separate shielded chamber in the base of the oven.

The control box is of cast metal and is conveniently located on the right side of the oven with all controls in front for ready manipulation. The control unit consists of the thermostat, two pilot lamps for indicating the operation of the two regulating units, main toggle switch for the line current and individual toggle switches for the auxiliary heating units.

Dimensions, outside, are: height 27½ ins., width 20¾ ins., depth 19¾ ins. Shelf space is 282 square inches, power consumption 660 watts and net weight 125 lbs.

This Cenco-DeKhotinsky triple wall oven is made by the Central Scientific Co.

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Modern Trend in Grain Improvement

By GLENN H. LEDIOT, sec'y Nebr. Improvement Ass'n, before Elevator Superintendents.

In days gone by grain men took low quality grain as a matter of course and if the grain produced in their territory was not "up to par," they simply felt that they were the victims of unfortunate circumstances and let it go at that. But not so today. We see ever increasing interest on the part of grain dealers to participate actively in grain improvement programs in order that the grain that they handle will meet the exacting requirements of the processor. Processors too are giving their full support to the recent movement for higher grain quality.

During the past decade we have seen commercially sponsored grain improvement work carried out in practically every area of the United States and Canada where grain production is of commercial importance. Since the Crop Testing Plan was put into operation in Canada twelve years ago, and following its outstanding success in improving the quality of the spring wheat grown in that country, we have seen commercially sponsored grain improvement organizations formed to improve the market quality of winter wheat, flax, barley, oats, soybeans, rye, and white corn.

The Grain Improvement Ass'n's Job—As elevator superintendents probably no other group of men realize better than you the importance of improved grain quality and the tremendous benefits that such work will have for the grain producer, dealer and processor alike. One needs only to examine the grade reports or the actual grain itself at any terminal market in the country to be impressed with the tremendous losses in grain quality that occur annually.

It is the Improvement Association's job to take up the task of grain improvement where the plant breeder leaves off and to see to it that the good varieties that he develops are given wide dissemination in the areas where they are adapted and are kept free from objectionable mixtures of other grain, inferior varieties of the same grain and weed seed.

In Nebraska, the program of grain improvement has included hard red winter wheat, spring wheat, durum wheat, oats, barley, and soybeans. The five principal goals are (1) the wider distribution of approved varieties and the elimination of varieties that are inferior from both the farmer's and trade's standpoint, (2) eliminating all types of mixtures, (3) controlling cereal diseases which impair grain quality, (4) preventing harvest damage and (5) preventing storage losses.

Ilini and Dunfield, the two soybean varieties which will be placed on the certified seed list in Nebraska for the first time in 1942 are acceptable to the processor.

Mixtures are Objectionable to the grain trade and many are subject to a price discrimination. A notable example is soft wheat and hard wheat mixed together. Spring wheat and winter wheat mixtures as well as inferior varieties mixed with acceptable varieties are objectionable.

Mixtures of six and two-rowed types of barley are objectionable. On the Omaha market during 1941, many carloads of barley received a lower price per bushel than pure two row because a large percentage of it consisted of six row varieties. In areas where malting barley is grown, six-row types are in demand but if mixed with two row, the price received is lower than for pure six row which meets the malting barley requirements.

In soybeans, mixtures of black and yellow beans are objectionable to the processor. White corn millers discriminate against mixtures of corn of other colors with white corn.

Mixtures are frequently very costly to the producer. Notable in this connection is rye in winter wheat which, according to the carlot survey of grain marketed at Omaha as late as

1938 cost the Nebraska farmers \$125,000 annually. Oats in barley is objectionable on the market and the lowered test weight per bushel usually results in a lowered market price. Experimental results at the Nebraska Station show that there is no advantage from the standpoint of yield per acre in growing field mixtures and yet in some areas this is a common practice.

The Nebraska Program—Because wheat is the principal market grain in Nebraska, the great share of the Nebraska Grain Improvement Ass'n's time has been devoted to the improvement in wheat quality. Since 1938, approximately 8,000 farmer's samples of wheat have been grown and classified in 85 grain improvement nurseries thruout the wheat producing areas of the state. This plan has been found effective in conducting field demonstrations and in persuading farmers to use the best seed available.

This past fall the association planted 18 regional wheat tests which include farmers' samples of wheat from several counties. A recent visit to these nurseries shows that all came thru the winter in excellent shape. This is in marked contrast to 1941 when 9 out of 26 tests failed to survive the severe winter of that year. There is some winter killing in Central Nebraska this year although in general abandonment will be light.

The Nebraska Pure Seed Plan has proved to be an effective "follow up" for the field meetings. Thru the cooperation of local elevators thruout the state, the State Department of Vocational Education and the Extension Service, several hundred farm youths planted pure seed of certified winter wheat varieties last fall and oats and barley varieties this spring.

Prior to seeding time in the fall educational meetings are held in all areas of the state which stress the importance of good seed wheat. Each year the association conducts a state milling and baking contest in connection with the state fair and the winning samples represent the state at the International Grain and Hay Show held in Chicago. Milling and baking data gathered in cooperation with the Agricultural Chemistry Department of the University of Nebraska and commercial mill chemists are distributed thruout the state.

This spring a statewide barley improvement program was launched. The same methods used with wheat in testing farmer's samples and distributing pure seed of approved varieties was used with the barley program. The elimination of mixtures and wider use of two-row barley in certain areas of the state are the principal objectives of the program. The same general plan is being used with oats.

At present, when there is great demand for increased acreage of soybeans, the association has been helpful in gathering and distributing information on better cultural practices and the best varieties for Nebraska conditions. The association published this information in the bulletin "Farmer Experiences with Soybeans."

Like all other commercially sponsored grain improvement ass'ns, ours in Nebraska serves as an effective go between for the trade on the one hand and the producer on the other. For the most part it has brought about a more cordial relationship between the grain dealer and processor, the research worker at the Agricultural College, and the grain producer. Altho this is not the primary function of grain improvement ass'ns, if they accomplish nothing more than to effect this closer cooperation they will have served a worthy purpose.

Chloropicrin, a commonly used poison gas effective in killing infestations of stored grain insects, is reported by Food Industries to increase crop yields when used as a soil fumigant.

New Wheats of the Future

By K. S. Quisenberry, Agronomist U.S.D.A. Bureau of Plant Industry, before Society of Grain Elevator Superintendents.

New and better wheat varieties are being produced and will be released from time to time. In the hard red spring wheat area a change is now taking place since Pilot and Rival, mentioned before, are increasing in importance. Thatcher will be replaced eventually by a wheat having resistance to both leaf and stem rust, and a better appearance both in field and bin, if not by Rival and Pilot, then by some strain as yet unnamed or possibly not produced.

In the hard red winter area the problem is a little more serious and better varieties are needed badly over much of the area. One of the most urgent needs is for resistance to stem rust, since in some years this disease causes considerable loss, and as yet no important commercial hard red winter wheat is really resistant. Some varieties such as Black-hull and Tenmarq escape severe damage because of early maturity, but in Nebraska the slightly later wheats, Cheyenne and Nebred, are susceptible to both rusts. At present rust-resistant winter varieties are available in breeding nurseries only.

Another serious hazard is Hessian fly, especially along the eastern edge of the hard winter wheat belt, and most Turkey wheats, and Tenmarq, are very susceptible to injury by this insect. Resistance is being developed and it is safe to predict that before many years a fly-resistant variety will be available for distribution. With the development of Hessian-fly-resistant commercial wheats may come earlier seeding for fall pasture, and this will make necessary seedling resistance to leaf rust.

To satisfy the grain dealer it will be necessary to retain the high test weight and beautiful appearance of the variety Chiefkan, especially so long as test weight continues to be an important grading factor. With this high test weight and good appearance must be linked the desirable milling and baking characteristics of Tenmarq, Nebred, and Turkey. Varieties of the future will vary less in milling and baking characteristics than has been the case in the past because of the better understanding of the problem and the more thorough quality studies made on all new strains.

At present much is being said about vitamins, especially thiamin or vitamin B₁. Efforts are being made to raise the B₁ content of white flour, and naturally the question arises as to whether wheat varieties differ in the content of this vitamin. Limited data from varieties of both hard red spring and winter wheats indicate that there may be varietal differences, but these differences are relatively small, and are greatly influenced by environment. Breeding for increased B₁ content is not under way with hard winter wheats although the question is not being ignored.

Present Breeding Work—The objectives for the future have been outlined with considerable assurance, and the impression may be given that the goal will be an easy one to reach. This is far from the truth since wheat breeding is, at best, extremely slow.

Improvement work has been under way long enough to lay a broad foundation of experience, upon which to build future plans. One thing that has been done with the hard winter wheats is to catalogue those varieties having superior germ plasm, so they will be available for use as parents of crosses. This list includes varieties that should be good parents in breeding for winter-hardiness, Hessian-fly resistance, high test weight per bushel, and many other characters. The present day breeder, with a definite objective in mind, carefully selects the parents most likely to give a good cross. He will not be right all of the time but failures are becoming less

frequent. The aim is to produce varieties possessing as many desirable characteristics as possible, or in other words to bring together more and more superior germ plasma.

Co-ordinated improvement projects are in operation in the important wheat producing areas of the United States. In these programs all the State and Federal breeders of the area work together informally; there is a free interchange of material, and new productions are tested over wide areas, and under varied conditions, thus giving information very rapidly. Controlled tests are being used more and more, thus making sure of readings each year. Controlled freezing chambers, disease gardens, Hessian fly nurseries, and heat and drought machines are in common use and tend to speed up the breeding work. Other things being equal, the variety having the best performance over the wider area is the one selected for increase and distribution.

Two new varieties of hard red winter wheat developed by this co-operative work are now being increased and will be released in the near future. One of these named Comanche is being increased by Texas and Kansas and it also should do well in Oklahoma. Comanche has many of the characteristics of Tenmarq, but it is resistant to bunt, and has a higher test weight per bushel than Tenmarq, and does not lose color so easily in the field. The other new variety has been named Pawnee and is being increased by Nebraska and Kansas. Pawnee has some resistance to stem rust, is resistant to leaf rust, loose smut, and to Hessian fly. The test weight is considerably higher than that of Turkey and Tenmarq, but the grain is inclined to be a little light in color. Pawnee is early, high in yield, not quite as winter hardy as Turkey, and has a tendency to shatter when ripe. Comanche and Pawnee have been tested for milling and baking characteristics and both are considered to be equal to Turkey.

Wheat breeders will continue to produce new varieties expected to give the farmer the maximum return per acre. These varieties will be equal in yielding ability to the present ones under favorable conditions, but will be higher in yield in years of disease epidemics, insect infestations, and winter killing. The new varieties released by public agencies will have milling and baking characteristics equal to, or better than the standard varieties now grown. Thus it is hoped that production may become more standardized to the advantage of both the grower and the buyer.

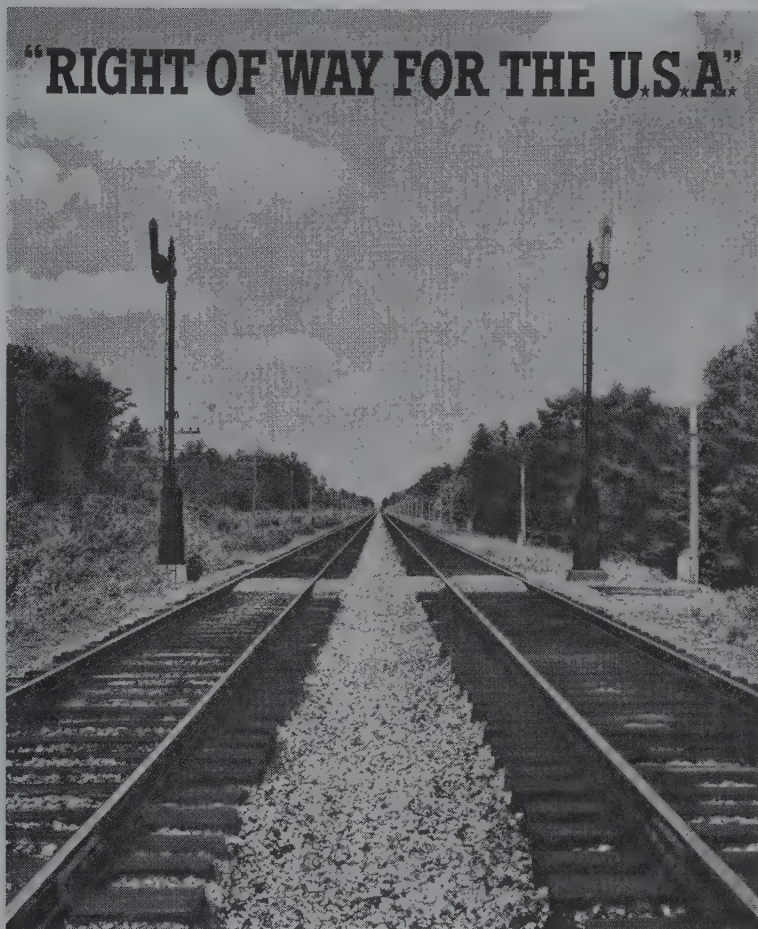
Wheat Price Controlled by Governmental Policy

If present stocks of wheat and new-crop prospects exert a normal influence, lower wheat prices will be in prospect. It is estimated that the carry-over of old wheat on July 1, 1942, will be 630 million bushels. More than one-half the carry-over probably will be owned or controlled by the government.

The carry-over plus the new crop probably will exceed 1,400 million bushels—the equivalent of two years of domestic consumption. However, these large stocks will exert relatively little influence on prices since prices will be governed primarily by the 1942 loan rate and governmental policy. The law provides that loans shall be at 85 per cent of parity. This indicates a rate near \$1.15 on farms. Action on the bill to prohibit the sale of feed wheat at less than parity may be an important market factor during the month. Passage of this bill would strengthen prices materially and failure of the bill probably would not weaken prices since the current loan rate has placed an effective floor under wheat prices.

Prospect of shortage of storage space and congestion in shipping facilities may tend to depress prices, but this influence will be of minor importance as terminal prices already are below the loan rate plus the accrued charges.

—Kansas State College.



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WASHINGTON, D. C.

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by

F. B. Morrison

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Grain & Feed Journals

Consolidated

327 S. La Salle St.

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Feedstuffs

Distillers' dried grain production in March was 29,500 tons, compared with 18,600 tons in March, 1941, reports the U. S. D. A.

Soybean meal is now found in a majority of the leading brands of calf meals, calf and heifer growing rations, dairy feeds, and dairy fitting rations.

The Red River Cotton Oil Co., Alexandria, La., was fined \$150 on a plea of guilty to having branded a shipment of cottonseed feed 41.12 per cent protein, when it contained less than 37.90 per cent crude protein.

Trucks carrying permanently mounted portable grinders on farm grinding routes or calls, are eligible for new tires, says an official ruling rendered by Thomas E. Harris, assistant general counsel, who cites section 405 (f) (5) or 405 (g) of the revised tire rationing regulations.

Hartford, Ind.—Sabotage of farm feed thru impregnation with disease germs was considered a possibility in discussions at a meeting of feed dealers here Mar. 28. A Purdue authority warned of possible spread of hoof and mouth disease which caused widespread trouble with livestock during the World War I, and is now a source of trouble in England.

The number of cattle on feed for market in the 11 corn belt states on April 1, 1942, was 2 per cent smaller than a year earlier. The decrease from last year was largely in the 5 states east of the Mississippi River, in all of which numbers were down. In all of the states west of that river, except Iowa, the number on feed was larger than last year, with the largest increases in the states west of the Missouri River.—U. S. D. A.

It is no secret that OPA does not want to fix millfeed prices on account of the complications which would be created by such action. The government is extremely reluctant to move in the matter. On the other hand, officials are not backward in saying that millfeeds are definitely higher than feeders ought to pay, and that appropriate action will be taken if necessary to bring them down. Trade efforts to discourage advances are much appreciated, but they have not been as effective as was hoped.—*The Hook-Up*, Millers National Federation.

A public hearing will be held before Wesley O. Ash, Regional Director Wage and Hour Division, and authorized representative of the Administrator, to take testimony for the purpose of determining whether the dehydrating of citrus pulp and waste is an industry of a seasonal nature within the meaning of section 7(b) (3) of the Act and Part 526, as amended, of the regulations issued thereunder, and if so, the appropriate limits of said industry. The public hearing will be held at Los Angeles, Cal., May 1 at 10 a. m., 417 H. W. Hellman Building.

Binghamton, N. Y.—More than 300 members of the Eastern Federation of Feed Merchants, Inc., are expected to attend the annual convention of the ass'n at the Arlington Hotel, June 12 and 13. Louis E. Thompson, Glen Ridge, N. J. is sec'y. "With the many perplexing problems that the war period thrusts into the feed situation, it is more important than ever that every member attend the convention this year," Mr. Thompson said. Priorities on truck and automobile tires, the use of molasses in bulk for feed mixing, priority regulations on farm machinery and equipment, plant operation and other business problems will be discussed.

Production of brewers' dried grains in March was 11,900 tons, compared with 9,100 tons in March, 1941, reports the U. S. D. A.

Program of Texas Feed Mfrs.

At the annual spring meeting of the Texas Feed Manufacturers Ass'n, Dallas, May 7, M. E. McMurray will speak on "Relationship Between the Feed Manufacturers and the Dairy Industry"; Ross M. Sherwood of the division of poultry husbandry, A. & M. College, on "Activities of Research, Marketing, as Outlined by the Texas Feed Manufacturers Ass'n to the Extension Department"; Ralph M. Field, pres. of the American Feed Manufacturers Ass'n, on "Ideas Good for the Industry"; K. J. Maltas, Decatur, Ill., on "Soybean Meal, Its Place as a Concentrate"; W. R. Ewing, Upper Montclair, N. J., on "Vitamins—Poultry Nutrition."

The meeting will be held 9 a. m. and 1:30 p. m. in the Danish Room of the Adolphus Hotel, 15th floor, where the registration will be conducted between 8 and 9 a. m. A badge will be requisite for admittance.

Revised Ceiling on Fish Meal and Scrap

Fish scrap, used as feedingstuffs, has been placed under maximum prices in Revised Price Schedule No. 73 as amended by the Office of Price Administration, effective March 27.

By the old schedule, maximum prices of fish meal alone were set on Jan. 17, 1942. However, because of a combination of the short supplies of fish meal in the United States and increase in demand, an unusual situation developed whereby fish scrap, the raw product upon which no OPA ceiling was set at the time, actually sold at higher prices than fish meal, the finished feedingstuff.

"Most feed manufacturers can grind fish scrap into meal themselves," the OPA explained, "and in view of the limited fish meal supplies, many manufacturers did buy fish scrap and convert it into meal."

"The selling of fish scrap above the ceiling price of fish meal was a distinct evasion of the spirit of the order," the OPA Administrator declared. "Hence, the amendment is not only continuing ceilings on fish meal, but also establishes maximum prices on fish scrap at \$3 per ton below the price of fish meal."

Minor adjustments are also made in some of the maximum prices for fish meal to make the maximum prices conform with per unit protein prices established under this amendment. Below are listed the maximum f.o.b. reduction plant prices in new burlap bags:

Percentage of Protein	Pacific Coast	Atlantic and Gulf Coasts
55	\$64.00	\$66.50
58	67.50	70.00
60	69.50	72.50
62	72.00	75.00
65	75.50	78.50
67	77.50	81.00
70	81.00	84.50

To determine maximum prices for protein levels not shown above, the percentage of protein is multiplied by \$1.16 per unit of protein for the Pacific Coast and \$1.21 per unit of protein for the Atlantic and Gulf Coasts, and rounded to the nearest half dollar (.50c).

The Canadian government is reported as asking farmers to plant no more than 22,000,000 acres to wheat this spring, the same number of acres as they planted last spring. Canadian farmers are offered a bonus of 25c per acre to change from wheat to flax.

Molasses Order M-54 Amended

The general preference order on molasses was amended Mar. 27, making the following changes: Hydrol, corn sugar molasses, is included in the definition of molasses and is subject to all terms of the Order.

Distributors are divided into two classes, primary and secondary. Deliveries of molasses may not be made by a primary distributor without specific authorization. Secondary distributors are not thus restricted.

Definitions of various classes of purchasers have been rewritten to include all users of molasses.

Definition.—"Class 7 Purchaser" means any person who requires molasses for sale directly (without the intervention of any other handler) to persons who require the same for ensilage or direct feed.

Restrictions on Deliveries.—Class 7 Purchaser, during any calendar quarter, 100% of a Calendar Quarterly Supply.

Deliveries by a Class 7 Purchaser (of Molasses to which he is entitled pursuant to subparagraph (c)(1)(vii) hereof) to persons who require molasses for ensilage or direct feed. Such deliveries should be made as equitably as possible among the persons requiring molasses in the area which such Class 7 Purchaser serves.

Class 7 Purchasers must submit to the deliverer of molasses a certificate showing that the delivery will not be in excess of the calendar quarterly supply to which he is entitled under the Order.

Georgia Feed Manufacturers Elect Brown

The Georgia Feed Manufacturers Ass'n, at a one day meeting in Atlanta, Mar. 27, held during the 10th annual baby chick and egg show sponsored by the University's Poultry Science Club, elected L. C. Brown, Macon, its new president to succeed Grant Card of Atlanta. J. D. Smith, Augusta, was elected vice president, and R. K. Salter, Macon, treasurer, while Tom Hill, Atlanta, was continued as sec'y.

New members of the board are these officers and G. H. Schoen, Atlanta. Hold-over directors are Grant Card, and Grady Yancey, Atlanta; G. D. Arnold, Valdosta, and R. E. Barinowski, Augusta.

The relations of the war effort to feed manufacturing was the dominant theme of the meeting. Discussion yielded a cooperative willingness on the part of the manufacturers to exchange ideas and information to produce feed at maximum capacity to supply today's demand.

Grady Yancey anticipated a tremendous supply of peanut meal and soybean meal when this year's proposed crops are processed, and suggested feed manufacturers adjust formulas to utilize these protein sources.

J. O'H. Sanders, Atlanta, predicted ample supplies of cotton bags thru the summer.

Custom and Special Mixes in Washington

Over a period of years a great deal of confusion has resulted as to how to regulate custom and special mixes and about a year ago the Department of Agriculture, at the request of our Board of Governors, issued a regulation to cover this phase of our operations.

The original regulation, altho approved by our Association, did not meet with approval of our members and in order to eliminate some of the clerical work called for in the first regulation our Board has prepared a revised regulation which has been approved by the Department of Agriculture and is now in effect.

There are some, perhaps, who may not approve of this revised regulation or do not wish to have special mixes regulated at all, but we cannot expect those who offer branded feeds for sale to live up to all the rules and regulations while others are able to compete with them without any check on their mixtures. Our Board felt that regulation of these mixes would tend to eliminate many abuses as well as improving the competitive situation.—J. G. Wilson, manager, Pacific Northwest Feed Ass'n.

Some Sad Effects of Feed Price Fixing

Fred J. Lingham, pres. of Federal Mill, Inc., Lockport, N. Y., writes interestingly to Feed-stuffs of his experiences as a feed price fixer in the first world war. He says:

"Conditions in the first world war, when we fixed feed prices at Christmas time, 1917, were as follows: Bran was selling, basis delivered Buffalo, in bulk, at about \$38 ton, midds \$42.50, corn \$62.50, oats \$50, and wheat (at \$2.30 per bushel) was costing mills approximately \$76.65 a ton.

"Our milling committee was afraid that millfeed might climb to the corn price. Also, we realized that farmers were no doubt receiving less under the ceiling that had been placed on wheat prices (\$2.30 Buffalo) than would have been true if there had been no control of wheat prices. So, in trying to be fair to the farmer, we went so far as to place a ceiling on feed prices as follows: Bran \$29.14, midds \$31.14, red dog \$44.14.

"As you will see from the foregoing, this put the bran price at less than half the cost of corn per ton, and everyone made a wild grab to get all of it they could.

"This hoarding situation was well illustrated by the fact that when the ceiling was on we in Washington were receiving telegrams from all over the United States, from the Atlantic to the Pacific, saying that cattle were starving because of lack of millfeed. One of the sections of the country most active along that line was New England.

"Then, late in 1918, without any notice, we took the ceiling off the price of millfeed, and let it go to its natural price level. Within a week we were being bombarded in Washington by telegrams from New England to the effect that there was so much millfeed then in New England that it could not be unloaded, and we must require mills to divert millfeed to other points.

"In other words, under the low priced control they claimed a starvation shortage, and the minute it was allowed to go to its natural value they claimed an abnormal surplus. This change of attitude all happened within a week, and I took the liberty of writing to a close personal friend who had been bombarding me from New England to the effect that New England cattle were starving, asking him to please advise me whether he had been lying 'last week or this week.' It had to be one or the other. I mention this as an illustration of the situation that developed under price control on a commodity where the ceiling had been set way below its natural market value.

"In this case, I am not criticizing others. I

was a party to what was done, so that any criticism includes myself as well as others."

Bewley Mills Answers Complaint

Answer to a Federal Trade Commission complaint charging misleading representations in the sale of "Bewley's Red Anchor Feeds" for poultry and livestock has been filed with the Commission by Bewley Mills, Fort Worth, Tex.

The respondent's alleged representations that its products give better and more economical results than can be obtained from the use of other feeds are misleading and exaggerated, the complaint alleged.

Many of the statements cited in the complaint as objectionable, the answer avers, have not been used since June, 1939, when the respondent entered into a stipulation with the Commission to cease and desist from certain misrepresentations concerning its feeds.

The respondent denies that in the advertising it is now using it makes any claims for the superiority of its products as compared with other feeds.

Hearings will be held in due course.

Cotton growers have been urged by the government to plant their full acreage allotments under the A.A.A. Purpose: to increase the amount of cottonseed and cottonseed oil available.

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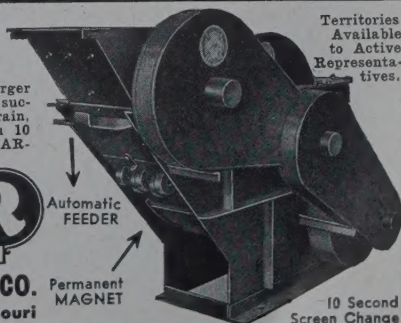
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Poultry Feeds and Feeding

Vitamin A Limitation Eased

The War Production Board has amended Limitation Order L-40 on vitamin A in line with the recommendations of the American Feed Manufacturers Ass'n, as developed by its Nutrition Committee in conferences. The order now provides:

"(b)(3) Unless expressly authorized by the Director of Industry Operations, no person shall on or after Apr. 10, manufacture or prepare feeds which, in the form recommended by the manufacturer or seller to be consumed, contain more than 1,000 U.S.P.XI units of vitamin A derived from fish or fish liver oils per pound of total ration; except that in the case of chicken, turkey and duck-breeding feeds and also turkey starting and growing feeds, the limitation shall be 2,000 U.S.P.XI units of vitamin A derived from fish and fish liver oils per pound of total ration.

"(b)(4) The provisions of subparagraph (3) above shall not apply to stocks of fish or fish liver oils which, on Feb. 10, were in the hand of, or in transit to, or blended and held in stock for the account of, persons who have purchased such oil for use by them as one of the ingredients of their manufactured feeds."

The amended order eliminates paragraph (b)(4) of the original order, which prohibited the use in feeds of fish oils having a potency of more than 12,000 units of vitamin A per gram. All types of fish oils of any potency may now be used in feeds.

R. M. Field, president of the American Feed Manufacturers Ass'n, says:

"While the order has been amended to permit a certain latitude in the use of vitamin A oils in the hands of feed manufacturers as of Feb. 10, this does not mean that this on-hand supply of oil should be wasted or used extravagantly. Feed manufacturers having such oils on hand should comply with the spirit of the order and use this oil as far as possible in line with the provisions of the order and not simply go ahead and make use of this oil at the old levels without any limitation. Vitamin A is necessary for human consumption, for our soldiers in this country and abroad, for supply to Great Britain, Canada and our other allies, and we must, therefore, readjust ourselves and comply with the spirit of this conservation program as far as possible."

Protein Concentrate Combinations

Experiments have been conducted by the State College of Washington during the past two years to determine the quality of various protein concentrates and combinations of them used in poultry feeding. As was pointed out last year, the cost should be measured by the cost per pound of available protein.

Situations may arise during the next year which may make it necessary to purchase proteins on the basis of available supplies. It has been found in our experiments that soybean oil meal can be used with fishmeal proteins in increasingly large amounts and excellent results obtained.

While the gross values may not be quite so good when large amounts of soybean oil meal are used, the results are quite satisfactory, provided the mashers are properly fortified with the necessary vitamins and minerals. For example: soybean oil meal had a gross value of 70; herring fish meal, 103.

A concentrate mixture containing 70 per cent soybean oil meal and 30 per cent herring fish meal by weight had a gross value of 85; 60 per cent soybean oil meal and 40 per cent herring fish meal had a value of 90; 50 per cent soybean oil meal and 50 per cent herring fish meal had a value of 87.

It would appear the concentrate of a chick

starting mash may contain equal parts by weight of soybean oil meal and herring fish meal and satisfactory results obtained. It has been found by investigators at other institutions that not more than 10 per cent soybean oil meal should be included in the chick starting mash.

As a result of these studies increased amounts of soybean oil meal have been used to replace herring fish meal and other protein concentrates.

Autoclaving Reduces Value of Some Proteins

Steam autoclaving markedly reduced the nutritive value for rates of the proteins in gossypol-free cottonseed meals. When meal that had been autoclaved for two hours was included in the diet of rats in sufficient quantity to give 12% protein, the gain in grams per gram of protein eaten was only .52, compared with 2.0 for unautoclaved meal.

Supplementing the autoclaved meal with lysine or histidine had little beneficial effect.—Effect of Autoclaving on Nutritive Value of Protein in Cottonseed Meal, by H. S. O'cott and T. D. Fontaine. (*J. Nutrition* 22, 1941.)

Riboflavin Concentrates

One of the most recent feed shortages which has developed in the poultry industry was due to the increased demands by the Government for large quantities of skimmilk powder for human consumption under the Lend-Lease Program. While there still are some small amounts of dry skimmilk available it is practically out of the picture for poultry rations. As a result of their experiments, the State College of Washington has recommended milkless chick developing and laying rations. These rations have been fed by large numbers of poultrymen in the field and have given excellent results.

In our 1941-42 experiments we have studied the use of different riboflavin concentrates in the W.S.C. chick starting mash when 1,600 micrograms of the riboflavin concentrate were fed per pound of feed. There is a considerable range both up and down in the number of micrograms of riboflavin per pound in many of these concentrates.

The results of the riboflavin experiments conducted at the Main Washington Experiment Station are reported. Similar samples of the same riboflavin concentrates were fed at the Western Washington Experiment Station and are reported. The micrograms of riboflavin in these concentrates were determined by the chemists at both stations, using the bacteriological method. The different combinations of riboflavin concentrates used were fed supplementary to the regular W.S.C. chick starting mash. In the experiment conducted at the Main Experiment Station there was very little variation in body weight, feed consumption and feed efficiency at four weeks of age in any of the groups. Similar results were obtained in the experiments conducted at the Western Washington Experiment Station. In both experiments there was very little difference observed in feathering and color of pigmentation of the skin in the lots fed the different riboflavin concentrates.

As a result of these experiments, the Poultry Council has recommended in Poultry Pointers No. 14 "Washington Chick and Developing Rations" several new chick starting rations using different combinations of riboflavin concentrates.

Commercial hatcheries responded to the demand for broiler and flock replacement needs with a record high February output, hatching out 95,000,000 salable chicks, reports the U.S.D.A. During the first half of March, egg settings were 17% over the same period a year ago.

The average number of eggs per hen annually in the United States rose from 84 in 1909 to 110 in 1941. Seven hens now lay more eggs than nine did in 1909.

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Vitamin D Requirements

By FRANK J. HOLT of White Laboratories at
Purdue Nutrition School

Vitamin D is of extreme importance to the feed manufacturer because it is entirely lacking in grains and, with the exception of very limited amounts in sun-cured hay, is not found in roughages.

There are several different forms of vitamin D but in general these can be classified in two groups, based upon the origin of the sterol from which it is produced. First, there is vitamin D of plant origin, illustrated by activated ergosterol and made available as irradiated yeast. The second is vitamin D of animal origin, illustrated by activated 7-dehydro-cholesterol, which is identical with the vitamin D in pure cod liver oil. These two forms of vitamin D produce similar results, rat unit for rat unit, in four-footed animals. In the case of poultry, however, vitamin D of plant origin is relatively ineffective unless fed at extremely high levels, which makes it uneconomical.

As with several other nutrients in commercial feeds, notably protein, the quality of vitamin D is extremely important in the selection of anti-rachitic supplements. The vitamin D in various fish liver oils differs in effectiveness for poultry, but it is possible to appraise various carriers of vitamin D by comparing them on chicks with U.S.P. reference cod liver oil of a known vitamin D content. This is the technique followed in the A.O.A.C. test, which reveals the potency of a vitamin D supplement in terms of A.O.A.C. chick units. The vitamin D supplement used in swine and dairy feeds, calf meals and dog foods, as well as fox and mink foods, can be expressed in U.S.P. units, which are measured in tests with rats.

Vitamin D is one of the most stable vitamins, although there are certain feeds in which vitamin D₂ (from fish liver oils) may be quickly destroyed. These include mineral supplements and swine concentrates containing large amounts of fat as well as mineral salts. Fortunately, irradiated yeast is just as effective as a source of vitamin D for all four-footed animals. Furthermore, it is completely stable in these mixtures.

The vitamin D requirements of poultry have been established in tests at the Pennsylvania Station and this work has been substantiated by several other institutions. The number of A.O.A.C. units required per pound of total feed intake when fed under confinement conditions are given as follows: Starting mash, 177 units; growing mash, 177 units, and laying mash, 354 units.

These levels can easily be supplied by cod liver oil, sardine oil, fortified oils; vitamin A and D feeding oils and the new product known as D-activated animal sterol.

Vitamin G is now known as riboflavin. It is part of the so-called B-complex, but because of its prominence in livestock and poultry feeds, it has taken precedence over the other members of this family. Extensive work with this vitamin has been done at Cornell University, as well as other experiment stations. The riboflavin content of various ingredients has been determined. The number of micrograms per gram of some of these are shown below: (One microgram equals one Cornell chick unit):

	Micrograms
Dried whey	12,000
Dried milks	9,000-9,500
Alfalfa meals	5,000-8,000
Fish meals	2,250-4,500
Meat scrap	2,700
Cane molasses	2,000
Soybean meal	1,400
Wheat feeds	900-1,000
Tankage	800
Cereal grains	400-450

The amount of riboflavin required by poultry is well established. The following table shows the micrograms per pound of total feed required by poultry of various ages: Growing chicks, 1,670 micrograms; laying hens, 680 micrograms, and breeding hens, 1,250 micrograms.

Unlike vitamins A and D, the riboflavin requirements of chicks is greater than laying hens.

Unless this is kept in mind, young chicks may easily develop nutritional or curly toe paralysis. The grains are poor sources of riboflavin, whereas milk, meat and fish products as well as alfalfa are excellent sources. These latter ingredients therefore deserve special attention in starting mash and also in breeding mash.

Ceilings on Wheat Millfeeds

Mixed feed manufacturers are intensely interested in the procedure and in the attitude of OPA officials toward price ceiling plans. If a price-fixing program is begun, nobody can ever tell where it will end, says R. M. Field, pres. of the American Feed Manufacturers Ass'n.

One suggestion which comes to mind is that mixed feed manufacturers buy as little millfeed as possible during the next 30 days or so, as if ceilings are not set during that period natural conditions may make them unnecessary thereafter.

Urea as a Source of Nitrogen

By E. B. HART, University of Wisconsin, at
Cornell Nutrition Conference.

Two separate experiments involving the utilization of urea and ammonium bicarbonate nitrogen with ten growing calves have been carried out. The experiments indicate definitely that nitrogen can be used for at least a partial supply of protein nitrogen. The most probable explanation is the production of protein by bacterial cell multiplication in the rumen and later digestion in the fourth stomach and intestine. With urea nitrogen constituting 43 per cent of the nitrogen of the ration, the growth rate was but slightly less than that secured with a ration containing 66 per cent of its nitrogen as casein nitrogen. This does not imply that urea nitrogen in the ration used is superior to casein nitrogen. The ration used consisted of yellow corn 29.5 parts, starch 20, ground timothy hay 47, steamed bone meal 2, iodized salt 1, cod liver oil 0.5. Where casein nitrogen constituted 43 per cent of the total nitrogen of the ration, the growth rate over a period of 16 weeks was 1.5 pounds daily as compared with 1.3 pounds daily for the comparable level of urea nitrogen.

The nitrogen of ammonium bicarbonate was also utilized.

Analysis of the tissues at the end of the experiment indicated that the increments in weight with urea or ammonium bicarbonate nitrogen were of normal composition with a protein content similar to that of the casein fed animal. Extractable non-coagulable nitrogen was no greater in the leg tissues of the urea or ammonium bicarbonate animal than in the tissues of the casein animal. In these experiments a variable urea level was used—1.4 pounds of urea per 100 pounds of the ration and 2.8 and 4.3 pounds per 100 pounds of the ration. Histological studies showed that there was no pathology whatever by the use of 1.4 pounds of urea per 100 pounds of ration (dry basis). When the level was raised to 2.8 pounds, the kidney showed slight but definite evidence of damage and where 4.3 pounds were used the spleen and muscle were normal. In the liver there were areas of necrosis and the kidneys were badly damaged with hyaline degeneration and many casts in the tubules. We are convinced from these experiments, and further experience, that a ration for dairy cattle can without any danger carry a quantity of urea equivalent to 1 to 2 per cent of the dry matter of the entire ration, or as high as 3 to 4 per cent of the concentrate part of that ration.

In addition to the studies on growth with urea, we have continued our work on milk production. Twenty-four cows have been involved. The plan was to feed a basal ration of corn silage, timothy hay, and a grain mixture of yellow corn and oats fortified with iodized salt and bone meal. The concentrate was fed at the rate of 1 pound for 3½ pounds of milk

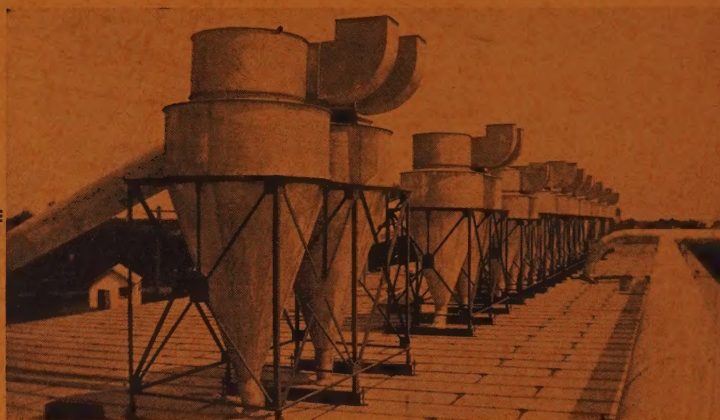
produced. The grain concentrate contained about 10 per cent of total protein. This is recognized as too low for sustained milk production. To this ration was added urea sufficient to make the protein equivalent of the grain mixture 18 per cent. Linseed oil meal was used as the control protein concentrate and added to the grain mixture in a quantity sufficient to raise the protein level to 18 per cent. Each cow is expected to pass through three lactations on the above ration, that is, basal, basal plus urea, basal plus oil meal. This report can deal only with the records of those animals that have finished the first and second lactations.

In addition to the studies on growth and milk production, studies have been made on what goes on in the rumen of a cow with urea feeding. Is there any influence of the level of protein in the ration on the utilization of urea? For example, if a protein concentrate contained 18 per cent of protein, would there be utilization of the urea if it were added to make the protein equivalent in the ration 24 per cent? In studying this problem a basal ration consisting of corn silage, timothy hay, and a concentrate composed of ground yellow corn and ground oats, half and half (11.3 per cent protein) was fed to a Holstein heifer with a rumen fistula. Varying amounts of linseed oil meal and urea were added to the concentrate to determine the effect of the level of protein in the feed on urea utilization in the rumen. Samples of rumen ingesta were obtained via the fistula and analyzed for protein and ammonia (urea). The protein content of rumen ingesta showed a decided increase when the level of protein in the concentrate fed was increased to 24 per cent. By increasing the protein in the concentrate fed to 18 per cent or more, the level of protein in the rumen ingesta became greater than 12 per cent. At this point the rate of conversion of urea nitrogen to protein in the rumen began to decrease. When no linseed oil meal was added to the concentrate, the added urea was utilized up to a level of 4.5 per cent (protein equivalent of 12 per cent) of the concentrate. In other words, one can rely upon effective utilization of urea when fed with grains alone carrying a protein level of about 10 to 11 per cent. If the concentrate carries 18 per cent or more then the added urea will not be efficiently utilized.

These studies also show that there must be a fermentable carbohydrate available in the rumen for efficient urea utilization. To put urea upon a roughage without any readily fermentable carbohydrate will not give results. Some carbohydrate, like the starch of the grains, or the sugars of molasses, must be present if we are to expect to have an active fermenting medium in the rumen of the cow. The cow herself will take care of the reaction through the intervention of a voluminous saliva with a pH of about 8.4. The rumen content will maintain a pH of from 6.7 to 7.3. This is a very favorable reaction for the activity of hosts of organisms.

In addition to our studies on urea, evidence has been accumulated showing that in the rumen there is a synthesis of the members of the B complex. Here again the quantity of these nutrients appearing through synthesis will depend upon an active fermenting medium. If a cow is fed only alfalfa hay, with its low fermentable carbohydrates, then there is no great bacterial activity in the rumen and the amount of the B complex in the rumen will be little different from what it was in the ingested hay.

U.S.D.A. has assured growers of, and dealers in, dry edible beans that it will continue its support of market prices for designated types of the 1941 crop, and that increased purchases would be made to relieve the situation created by restrictions applied to the use of tin for canning. Ordinarily much of the crop is canned. Government support of the bean market is expected to encourage growers to increase production to meet the 1942 production goals.



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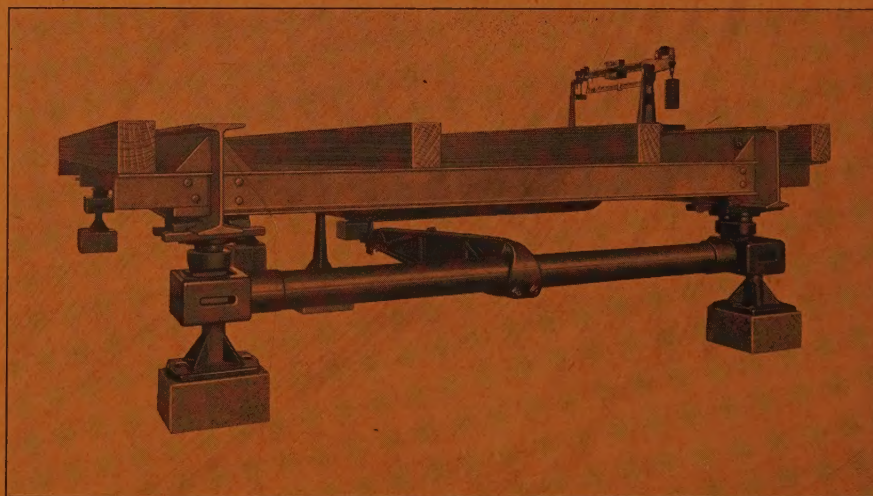
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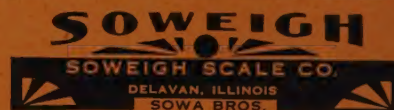
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